DECEMBER 1971

WEEDS TREES and TURF

1972 Suppliers' Guide and Equipment Directory

perfect!

Right now, we think we have the world's most perfect turf variety (and model). 0217® Brand Fylking Kentucky bluegrass seeds germinate enthusiastically, grow a lush, deep green lawn with a thick turf. And here's where the perfection is appreciated by the people who must grow and care for lawns: Disease and drought resistance! Dense turf crowds out weeds. Fertilizer and water requirements are always modest when cut between ¾ - 1½ inches. (Can be cut low as ½-inch for home putting green.) Specify the perfect one, 0217® Fylking Kentucky bluegrass, now at your local wholesale seed or sod distributor.

Another fine product of Jacklin Seed Co., Inc.

For More Details Circle (111) on Reply Card

HERCULES

Agricultural Chemicals
TURF NOTES

NUMBER 104-1

CRABGRASS CONTROL... AZAK®

selective pre-emergence herbicide

AZAK® is designed for pre-emergence application to control crabgrass on established lawn and other turf areas. It is not recommended for use on newly seeded turf. In the soil at the time of germination, Azak is effective in preventing seed germination and initial growth of crabgrass.

Azak does not evaporate or leach out of the soil easily. Thus, it can be applied several weeks ahead of crabgrass germination, and an effective barrier will remain through the germination period.

Azak is available as an 80% wettable powder, Azak 80-WP, that readily disperses in water for use in conventional spray equipment. A granular product can be formulated from the wettable powder that is easily applied by mechanical spreaders.

ADVANTAGES OF USING AZAK FOR CRABGRASS CONTROL

1. *Economical at effective rate.*
2. *Nonleaching so that one application lasts through the crabgrass germination period.*
3. *Lack of odor makes it pleasant to handle and use.*
4. *Safer to established turf at the recommended rate.*
5. *Low in toxicity to warm-blooded animals.*
6. *Compatible with most fertilizers and pesticides.*

HERCULES

TURF & HORTICULTURAL PRODUCTS
SYNTHETICS DEPARTMENT
HERCULES INCORPORATED
WILMINGTON, DELAWARE 19899

FOR CRABGRASS CONTROL IN ESTABLISHED TURF
HERCULES
COVERS 1 ACRE OR 43,560 SQ. FT.
AZAK
80% WETTABLE POWDER
CAUTION: READ ENTIRE LABEL FOR ADDITIONAL HANDLING PRECAUTIONS
KEEP OUT OF REACH OF CHILDREN
NET WEIGHT 12.5 POUNDS
MADE BY AGRICULTURAL CHEMICALS SYNTHETICS DEPARTMENT HERCULES INCORPORATED WILMINGTON, DELAWARE U.S.A.

One bag will control crabgrass in one acre, or 43,560 sq. ft. Each carton contains four 12.5-lb. bags of Azak.

First Class
PERMIT NO. 5
WILMINGTON, DEL.

BUSINESS REPLY MAIL
No Postage Stamp Necessary if Mailed in the United States

POSTAGE WILL BE PAID BY

Turf & Horticultural Products
Synthetics Department
HERCULES INCORPORATED
Wilmington, Delaware 19899

HERCULES

Agricultural Chemicals

TURF NOTES

NUMBER 105-1

NITROFORM®

UREAFORM PLANT FOOD

- *Used by Professionals to Build and to Maintain the Finest Turf*
- *Used by Nurserymen to Grow and to Sustain the Finest Ornamentals*

NITROFORM ureaform has become one of the most important fertilizers for use on plants that require sustained nitrogen feeding. Whether the application is for fine golf course turf; for beautiful ornamentals; or for industrial, recreational, or lawn grass—Nitroform is selected for the following combination of advantages.

EFFICIENT Nitroform, containing 38% nitrogen, is one of the most concentrated forms of slow-release organic nitrogen available.

NONBURNING Nitroform, safe to use, will not burn turf even when used at several times the recommended rate.

NONLEACHING Nitroform, about two-thirds insoluble in cold water, is not washed out of the soil and remains available until plants can use it, even during dormant periods.

ODORLESS Nitroform has no odor. This feature is especially appreciated on sports turf and near pools, patios, and other living areas.

LONG-LASTING Nitroform, by feeding nitrogen slowly as the grass demands, lasts up to five times longer than conventional fertilizers.

RESIDUAL Nitroform, left unused in one growing period, lies inert in the soil until the bacteria are active again. Nothing is wasted; the residual Nitroform nitrogen is carried over into the next growing period.

ECONOMICAL Nitroform, by reducing the number of fertilizer applications, frees labor for more flexible planning. The cost per unit of Nitroform nitrogen is less than with other organics, and its use requires less storage space and less handling than with conventional fertilizers.

HERCULES

TURF & HORTICULTURAL PRODUCTS
SYNTHETICS DEPARTMENT
HERCULES INCORPORATED
WILMINGTON, DELAWARE 19899

COMPLETE COUPON AND MAIL • NO POSTAGE REQUIRED

☐ Please send complete copy of Turf Notes Number 105 on Nitroform.

☐ Please send complete copy of Turf Notes Number 104 on Azak.

☐ Also, please send Turf Notes Number 101-1 with the Nitroform program recommended for my section of the country.

(PLEASE TYPE OR PRINT)

Name _____

Title _____

Company _____

Address _____

_____

ZIP

This new, Super-Lightweight will amaze you! The STIHL 020 AV

Here it is! New and terrific!

The finest and the most advanced mini-size lightweight saw in the World... designed and engineered for you by STIHL, makers of the World's First and Finest Chain Saws.

It's the first and only chain saw of its size in the World with built-in shock absorbers and automatic chain oiling. Yes, now you can have the same famous patented STIHL AV anti-vibration system & superior quality and performance, formerly only available in our higher priced professional models.

A small beauty, that weighs less than 10 lbs. with bar & chain. Its amazing power and long, trouble-free operation, without overheating, makes it perfect for pruning, limbing and felling.

So... Don't Settle for Less than the Best. Insist on STIHL! Like the terrific new STIHL 020 AV!

STIHL American, Inc.

194 Greenwood Avenue, Midland Park, N. J. 07432, Code 201-445-0890
7364 Lee Industrial Boulevard, Mableton (Atlanta), Georgia 30059, Code 404-941-1730
23962 Clawiter Road, Hayward California 94541, Code 415-785-9100

STIHL 020 AV

◀ For More Details on Preceding Page Circle (110) on Reply Card

For More Details Circle (136) on Reply Card

WEEDS TREES and TURF®

Volume 10, No. 12 December, 1971

Arthur V. Edwards
Editorial Director

Eric Lindsay
Advertising Production

Hugh Chronister
President and Publisher

Dan M. Humphrey
Vice-President, Advertising

D. D. Langley
Director of Circulation

ADVERTISING SALES OFFICES

Cleveland, Ohio 44102
9800 Detroit Ave./216+651-5500
William Schmunk

Chicago, Illinois 60601
333 N. Michigan Ave./312+236-9425
John Kielp

Shawnee Mission (Kansas City), Kansas 66202
6811 W. 63rd St./913+722-5900
Austin Schnacke

New York, New York 10017
757 Third Ave./212+421-1350
Russell Bandy

Los Angeles, California 90005
The Eschen Company
3142 Wilshire Blvd./213+382-8391
Henry Eschen

San Francisco, California 94104
The Eschen Company
57 Post St./415+781-7440
Rod MacDonald

Boulder Greenbelt Saves Scenery 12

A major program by a municipality which restricts inroads into scenic area and develops a "greenbelt" adjacent to the city by free-lancer Lou Speer.

Tree Care Market to Double In 10 Years—Can Industry Keep Up? 14

A forthright statement by Robert Bartlett, president of the F. A. Bartlett Tree Expert Company outlining his views on the industry for the next decade.

Suppliers Guide and Equipment Directory 17

Article and Author Index for 1971 59

Associations in 1972—Plans, Programs, Reports 68

Systemic Treatment Via Trunk Injection 72

A new tree injection product, Medicaps, is now on the market for treating iron chlorosis. It is sold by Creative Sales, Inc.

Editorial	8	Industry People On Move	77
Government Business/News	10	Insect Report	79
Letters-to-Editor	63	Classifieds	83
New Products	65-67	Advertisers Index	83
Meeting Dates	74	Trimmings	84
Sod Industry Section	75	Book Report	84

The Cover

Drag line controls symbolize the industry. Today the equipment and chemicals to do a quality job for mankind are available. A glance at the 1972 WEEDS TREES AND TURF directory (beginning on page 17) is sufficient evidence to assure that needs of the coming decade will be met. A comprehensive index to articles and authors published by WEEDS TREES AND TURF magazine begins on page 59. It is an excellent reference to 1971 data.

WEEDS TREES and TURF is published monthly by The Harvest Publishing Company, subsidiary of Harcourt Brace Jovanovich, Inc. Executive, editorial headquarters: 9800 Detroit Ave., Cleveland, Ohio 44102.

Single Copy Price: $1.00 for current and all back issues. Foreign $1.50.

Subscription Rates: WEEDS TREES AND TURF is mailed free, within the U.S. and possessions and Canada, to qualified persons engaged in the vegetation care industry and related fields in controlled circulation categories. Non-qualified subscriptions in the U.S. and Canada are $10.00 per year; other countries, $12.00 per year. Controlled circulation postage paid at Fostoria, Ohio 44830.

Copyright © 1971 by The Harvest Publishing Company

Member
American Business Press
Business Publications Audit

The Dow Chemical Company, Agricultural Department, Midland, Michigan 48640.

Keep your petals on. ZECTRAN insecticide is back.

ZECTRAN® is back! It's back because you asked for it. You needed its broad-spectrum control of most major foliage-feeding insect pests (even hard-to-kill kinds). And its proven extra safety on over 600 different flowers, ground covers, trees, shrubs, house plants and turf. It's biodegradable, nonstaining, easy-to-apply. Liquid or powder. In our formulation or to mix with yours. ZECTRAN is back.

For More Details Circle (105) on Reply Card

DOW

Blitz Fog®

Lowest Priced big area Fogger

- **Totally Portable — Hand Carry or Roll on Optional Lightweight Cart**
- **New Pump Action Design for Greater Fogging Capacity**
- **3 HP Gas Engine Powered... Easy Starting — Easy to Maintain**

Scientifically controlled heat converts liquid insecticide to dry or wet fog. Excellent for insect control... nurseries, warehouses, golf courses, drive-ins, around farms, feeder lots, motels and resorts.

BLITZ FOG® — More stores sell Blitz Fog® ...the most complete line of Insect Foggers — gas engine, propane and electric powered, lawn mower and garden tractor attachments.

VILLAGE BLACKSMITH®

Division of McGraw-Edison Company

P.O. Box 260 • Watertown, Wis. 53094

Write or Phone: WALTER PATTERSON
Marketing Manager (414) 261-7350

Editorial

On Collecting Delinquent Accounts

No business long endures if accounts are not collected promptly—or if customers are unduly harassed in the process of making payment.

Few businesses can afford the luxury of losing customers via poor public relations—over money, service, results, etc.

We've heard of a number of workable collection methods—probably the most effective of late being the common department store method of adding a 1% service or carrying charge on each month after 60 days.

Legal action, though effective, is expensive, and seldom worth the effort for the average service account.

So, how about the telegram? Immediate attention to contents of a telegram—by the specific person to which it is directed—is well established. The sender is almost guaranteed that the intended recipient will get the message. And there's a good chance the shock or jolt of the telegram will get action.

In one instance—company used telegrams to diehard debtors who had regularly ignored collection letters. Result was that most paid their bills in full. Collection costs averaged 3%.

Credit specialists have pointed to the psychological impact generated by a telegram. People who owe you probably owe other bills also. You provide the mental jolt, and you may get paid first.

Businesses who have used the telegram as one aid in collecting delinquent accounts have some rules. First, never send the telegram collect. This can be expected to be resented by the recipient. Nor will Western Union normally accept dunning types of telegrams on an intracity basis. Western Union will, however, attempt to deliver telegrams at an hour specified by the sender. Thus, it is possible to have the message arrive at a time when the recipient is most likely to receive it. Some collection managers have been known to use the telegram method with the dinner hour as the time slot for delivery.

Some suggested messages, supposedly proved effective, are:

(1) Please advise if check covering your account now due has been mailed;

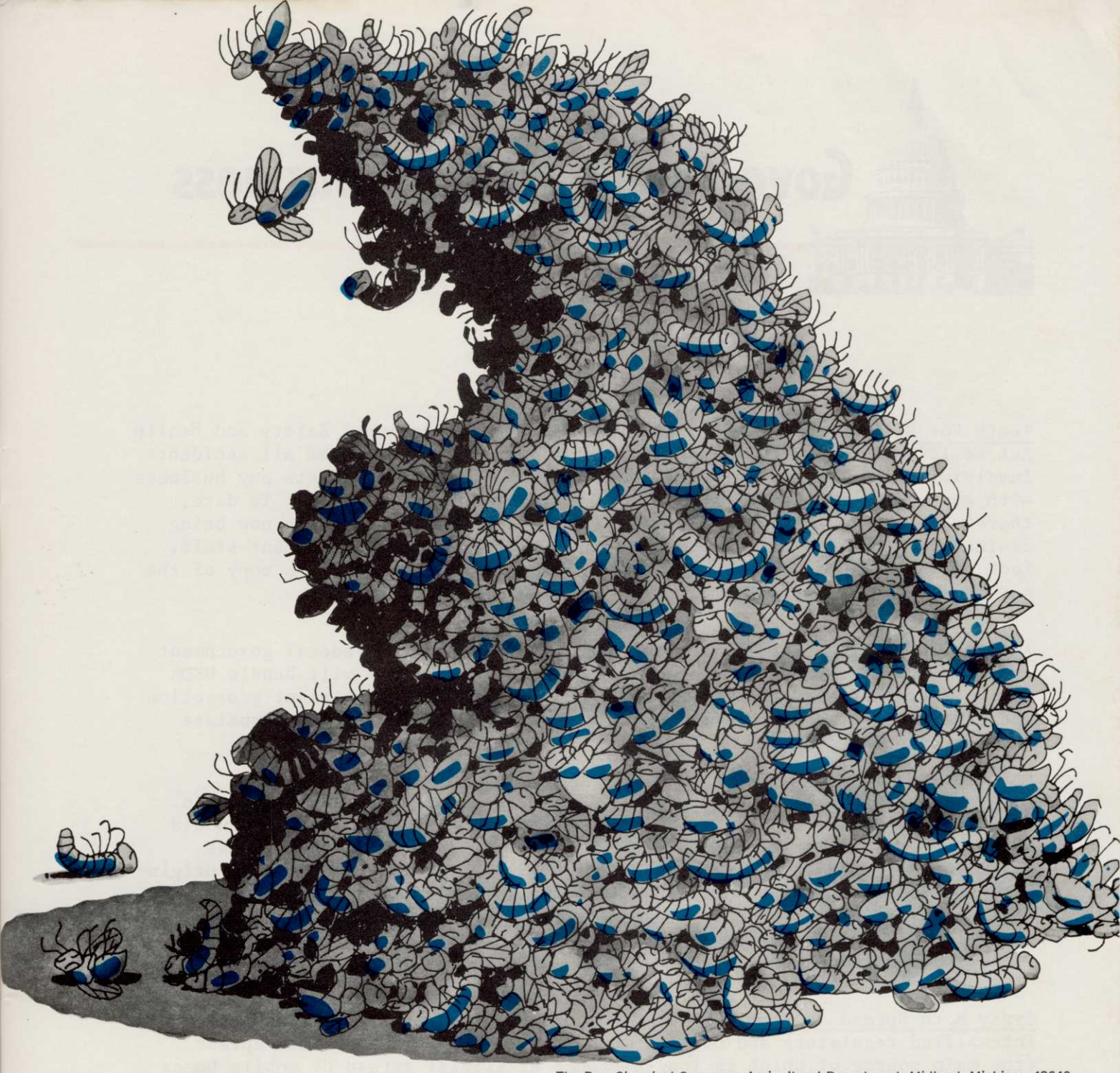
(2) You have apparently overlooked your payment. May we have your check promptly please;

(3) Only immediate compliance by letter (date) will save your credit;

(4) Urge you wire your intentions on your account immediately to protect your future credit rating;

(5) Urgent I receive payment this week. I value your friendship too much to be compelled to resort to legal action;

(6) Imperative remittance on your account to be sent at once to avoid action by my lawyer.



The Dow Chemical Company, Agricultural Department, Midland, Michigan 48640

Dursban insecticide gets you more bugs for your buck.

That means you'll not only wipe out chinch bugs and sod webworms, but more! You'll find a little Dursban® insecticide goes a long, long way. And Dursban won't leach, has excellent residual activity, even though it's degradable. It's safe, too–for all common turf grasses. Keep the holes out of your turf *and* out of your budget. Tell your contract applicator you want Dursban insecticide . . . the unsurvivable one.

DOW

For More Details Circle (106) on Reply Card

Government News / Business

Teeth For Safety Act The new Williams-Steiger Occupational Safety and Health Act of 1970 went into effect April 28. It requires a record of all accidents involving employees and a healthy working atmosphere. It affects any business with employees which might be termed a store, plant or business. To date, there's been little or no enforcement, but 70 plus inspectors are now being trained each week by the Labor Department to beef up the enforcement staff. Look for a check of your operation this next year. You can get a copy of the Act from the U.S. Labor Dept.

Animal and Plant Health Service A new department of the Federal government and a new regulatory agency. Proposal is that the new arm will handle USDA Agricultural Research Service regulatory functions including plant protection and others. Acting administrator is Dr. Francis J. Mulhern, now associate administrator of ARS.

Environmental Pesticide Control Act Passed the House by a 288 to 91 vote. Activity now shifts to the Senate. An amendment adopted by the House would allow states to restrict either general use pesticides or restricted use pesticides more drastically than the Environmental Protection Agency. Originally the House committee version would have prevented states from exceeding Federal restrictions on general use materials. Uniform labelling is still a part of the House approved package. The Senate committee on Agriculture and Forestry is expected to conduct hearings shortly on the bill.

Gypsy Moth Spread Acute USDA's Animal and Plant Health Service is designing intensified regulatory and control measures to minimize gypsy moth spread (the main source of which is long-distance artificial spread by mobile homes and trailers). A new 5-year research and development program is underway. It will concentrate mainly on selective biological controls with a limited use of chemicals. Of 2 million acres suffering light to severe defoliation this year, the greatest area was in Connecticut with 655,000 acres. Other states hardest hit: Pennsylvania, 598,000 acres; New York, 479,000 acres; New Jersey, 18,000 acres; and Massachusetts, 18,000 acres.

Secretary of Agriculture Nomination Long-time dean of agriculture at Purdue University, and now vice-president, Earl L. Butz has been nominated to succeed Clifford M. Hardin as Secretary of Agriculture. The Senate, in a difficult to understand stall, has not as yet (at presstime) approved the nomination. Butz, an Indiana native, has a lifetime career as educator and administrator at Purdue. He also served as assistant secretary of agriculture in the Eisenhower administration. He is probably the best known agricultural dean of this generation and one of the staunchest supporters for the family farm.

THE ECONOMIZER

SPROUT GARD is a growth inhibitor tree paint. Asplundh put it in an aerosol can to save you money and time in tree trimming. And it will—EASILY THOUSANDS OF DOLLARS A YEAR. SPROUT GARD does it in three different ways.

COUNT 'EM
- it reduces the number of sprouts after trimming.
- it reduces the length of sprout growth.
- and, it reduces the amount of wood to be removed in the retrimming cycle.

SPROUT GARD was proven to be THE ECONOMIZER in numerous field tests. ASPLUNDH uses it in all tree trimming operations. YOU CAN SAVE A LOT OF MONEY AND TIME IN TREE TRIMMING. Start by sending for a free brochure covering SPROUT GARD and an ASPLUNDH-developed inhibitor pole applicator that minimizes climber movement. WRITE ASPLUNDH TREE EXPERT CO., 505 York Road, Jenkintown, Pa. 19046

ASPLUNDH

For More Details Circle (138) on Reply Card

Greenbelt in Boulder

SAVING THE SCENERY

By LOU SPEER

MAKE NO SMALL PLANS, for only large plans have the power to capture the imagination of the people." That is the borrowed philosophy Ronald Donahue, Boulder, Colorado, Parks Superintendent, took for his own a long time ago.

Just how far this philosophy has extended, can be seen in Boulder's Greenbelt Program. Believed to be the largest municipal open-space program in the nation, planners hope it will ultimately total 12,000 acres, preserving the city's scenic mountain backdrop and controlling urban sprawl.

To date, thru purchase and option, $4,200,000 have been committed on the project. Projections estimate it may take another 25 years to complete the master plan, and $15 to $20 million.

For other U.S. cities faced with the dilemma of decreasing green space, Boulder's open space plan is a model.

"First of all," Donahue says, "I think the key in our particular plan here was that this community had some kind of an anchor, a geologic feature, to preserve."

One has only to look out the window to see that feature: a dramatic mountain view.

Boulder, which has risen from a mining camp to an academic and technology center of 70,000 persons, nestles in a basin at the edge of the Rockies, 27 miles north of Denver. Rapid development threatened Boulder's scenic setting as subdivisions pushed further and further up the mountains.

In 1958, spirited citizens launched a holding action to protect the foothills. A "blue line" was established at an elevation above the city beyond which city water and sewer services could not be extended.

"This bought us time," Donahue says. "Other comunities might do this with their own utilities, especially if they have electric services. It's kind of a hammer. If a developer cannot get sewer, lights, and water, chances of him being able to put in a development are slimmer."

Often, though, land becomes so valuable people are willing to sink wells and put in expensive package treatment plants. Electricity is almost always available from some source.

The "blue line" effectively slowed development in the Boulder Valley until a plan could be set up. and a way of financing begun.

"We had a pretty good piece of land to start with," Donahue says.

Thru grants in 1899 and 1910, the Federal Government deeded the City 3,000 acres of Mountain Parks land. The Greenbelt expanded from there.

City fathers envisioned a belt of land in its natural state surrounding the city, with wilderness and park areas available to everyone in the community. Lakes and reservoirs would be anchor spots; there would be continuous linking systems.

Preservation of the majestic mountain backdrop had first priority. The City had little money in its acquisition fund.

Informed citizens, in a whirlwind educational program, took the matter to the public. In November 1967, a one-cent, open-ended, tax increase was approved by the voters, four-tenths being designated for the Greenbelts.

Today, all but 500 acres of the backdrop have been secured by the City.

"It is probably going to be more difficult," Donahue admits, "for a community with no prominent geologic feature — like a river, lake, or mountain outcrop — to establish a plan. However, I think the necessity for doing so is maybe the same in all areas, that is, to take the immediate person-to-person pressure off by establishing open spaces, where just the actual rub of civilization is becoming intolerable.

"And unless the plan is rather sweeping and imaginative," he adds, "it generally will not get the support that it needs to pass . . . The idea that the majority of the public has to be touched to benefit from the issue, is very important. That's why a large consolidated plan, which makes some sense, really has a better chance of surviving than a disjointed program which requires a gob here and a gob there. That's really not a Greenbelt anyway, but a residential park preservation."

Boulder, already, has realized many tangible and intangible benefits from its sweeping concept.

A 1970 flood control report showed the grassy and wooded slopes above the "blue line" absorbed more rain than rooftops and streets would have, thus lowering the City's output for expensive flood control installations.

A variety of active and passive recreation is available to the public: hiking, horseback riding, picnicking, fishing, mountain climbing.

The mountain lands shelter numerous wild animals: birds; kit foxes; bobcat; deer; and the uncommon tufted-eared, black abert squirrel.

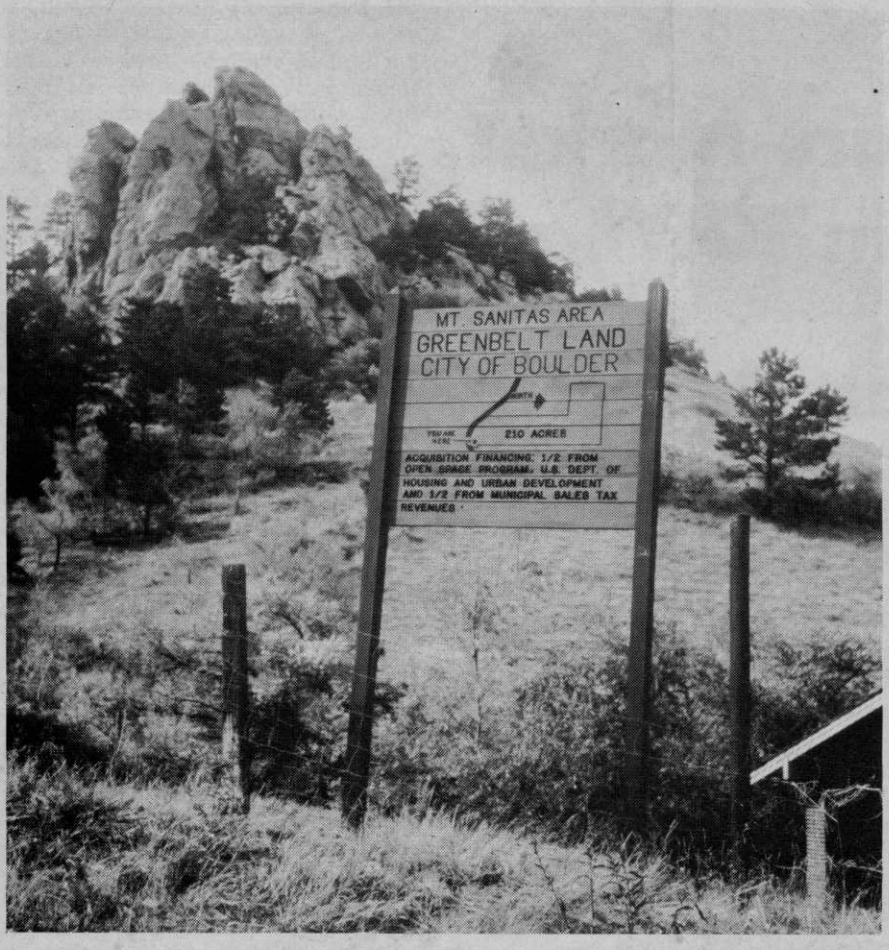
Over 50 varieties of wildflowers have been identified along mountain ridges and slopes. Of particular interest in the area where the Greenbelt and Mountain Parks merge, is an unusual interface between mountain and plains ecology.

"We find things that are associated with alpine growing alongside things associated with the plains," Donahue says. "This is significant to those studying botany, of whom we have quite a few in the city."

A second report cites the savings to the City in retaining land in its native state versus developments needing streets, utilities, schools, and protective services.

Donahue states, "I think the community that has well distributed open space lands has the tendency to be a much better preserved community than ones that don't."

Not all of Boulder's Greenbelt System is in its "out-of-town basket." The City has 25 in-town parks, totaling 300 acres. The greenways of some planned housing developments have been incorporated into the Master Plan. Narrow green strips, along creeks and irrigation ditches running thru the city, are being acquired. Extensive tree


MT. SANITAS AREA
GREENBELT LAND
CITY OF BOULDER
210 ACRES
ACQUISITION FINANCING: 1/2 FROM OPEN SPACE PROGRAM, U.S. DEPT. OF HOUSING AND URBAN DEVELOPMENT AND 1/2 FROM MUNICIPAL SALES TAX REVENUES

Among the latest acquisitions for the Boulder Greenbelt is the Mt. Sanitas area. It is adjacent to Mountain Park land and continues north of the city.

Besides the so-called "out-of-town" greenbelt area, Boulder maintains 25 town parks such as the Chataqua Park, pictured.

planting along streets is furthering the program.

Present Park Department holdings total 7,300 acres (including Greenbelts).

"We administer the Mountain Parks and Greenbelts the same," Donahue says.

The wilderness lands require little care beyond regular fire protection. Some reforestation projects have been started, and erosion control along one fire trail. A sign program, establishing the boundaries of the Greenbelt is in progress. Litter pick-up and fence repair along private holdings are regular duties of Park maintenance crews.

Maintenance crews in the Mountain Parks and Greenbelt area rarely exceed five.

"In the summer, we have a four-man crew plus a ranger," Donahue says. "In the winter, a two-man crew plus a ranger."

The ranger patrols the area, checking for illegal camping and fire violations, in a four-wheel drive vehicle equipped with two-way radio communications.

Maintenance crews operate four-wheel drive pickups, and the department obtained a low-ratio geared fire vehicle from government surplus.

Instances of crime, or destruction of property in the Mountain Parks or on Greenbelt lands, so far, have been few.

Because of the magnitude of the Greenbelt Program, the bookkeeping system is computerized.

"It is a separate, ear-marked program in itself," Donahue explains. "All records are kept in separate files."

Again because of the size of the program, the City has a special land officer. He is justified by the tremendous amount of time necessary to examine anticipated acquisitions and to negotiate. A qualified appraiser, the land officer, Joe Wing, not only works with the Greenbelt but helps the city in other land purchases.

The biggest headache in Boulder's far-reaching Greenbelt plan, as Donahue sees it, is the execution of the total program.

The main acquisition tool, until now, has been long-term purchase options. In many cases, with its limited funds, the City paid only ten percent down with an agreement to spread the balance across the next ten years, without interest.

With this kind of financing, park officials bleakly faced what looked like an acquisition time of several generations. Meanwhile, land prices would be escalating and hoped for areas left open to developer piracy.

Other ways to obtain money to cut down the time of acquisition were studied.

The City has received $736,000 in open space grants from the Department of Housing and Urban Development (HUD). Additional grants are speculative as requests from cities far exceed the amount available.

The big helping hand extended on November 2, when a record number of voters passed a bonding referendum for greenbelt purchases. The referendum allows for 50 percent of the sales tax money, for a period of ten years, to be used to pay off Greenbelt purchase bonds — a total of almost $5.5 million.

The issue passed by a whopping 78 percent margin, which Donahue considers both a reaffirmation of the Greenbelt theory and solid support for its continuance.

Tree Care Market To Double in 10 Years

Can Industry Keep Up?

A Forecast from Robert A. Bartlett

THE PICTURE of the tree maintenance industry over the next decade is seen as a mixed one by Robert A. Bartlett, president of The F. A. Bartlett Tree Expert Company.

On one hand, Bartlett sees the market for residential and industrial tree care as doubling from its present $300,000,000 level over the next 10 years.

On the other hand, he feels that such a growth in market may outstrip industry's capacity for growth. He notes that the number of personnel entering the tree maintenance industry has been dropping at an alarming rate—falling from 15 to 30% per year over the past couple of years.

Thus, the biggest problem facing the industry, as Bartlett sees it, is to educate young people to the opportunities available to them in the industry — opportunities not only for a satisfactory and remunerative lifetime career, but also to make a genuine contribution toward improving ecological conditions.

"After all," Bartlett says, "trees can live without man, but man can't live without trees."

Contributing to the expected market growth are several sociological factors, according to Bartlett.

At the beginning of the century when scientific tree care was in its infancy, most work was confined to large estates owned by the wealthy. His own firm, he notes, had as many as 150 men working on a single estate at a time.

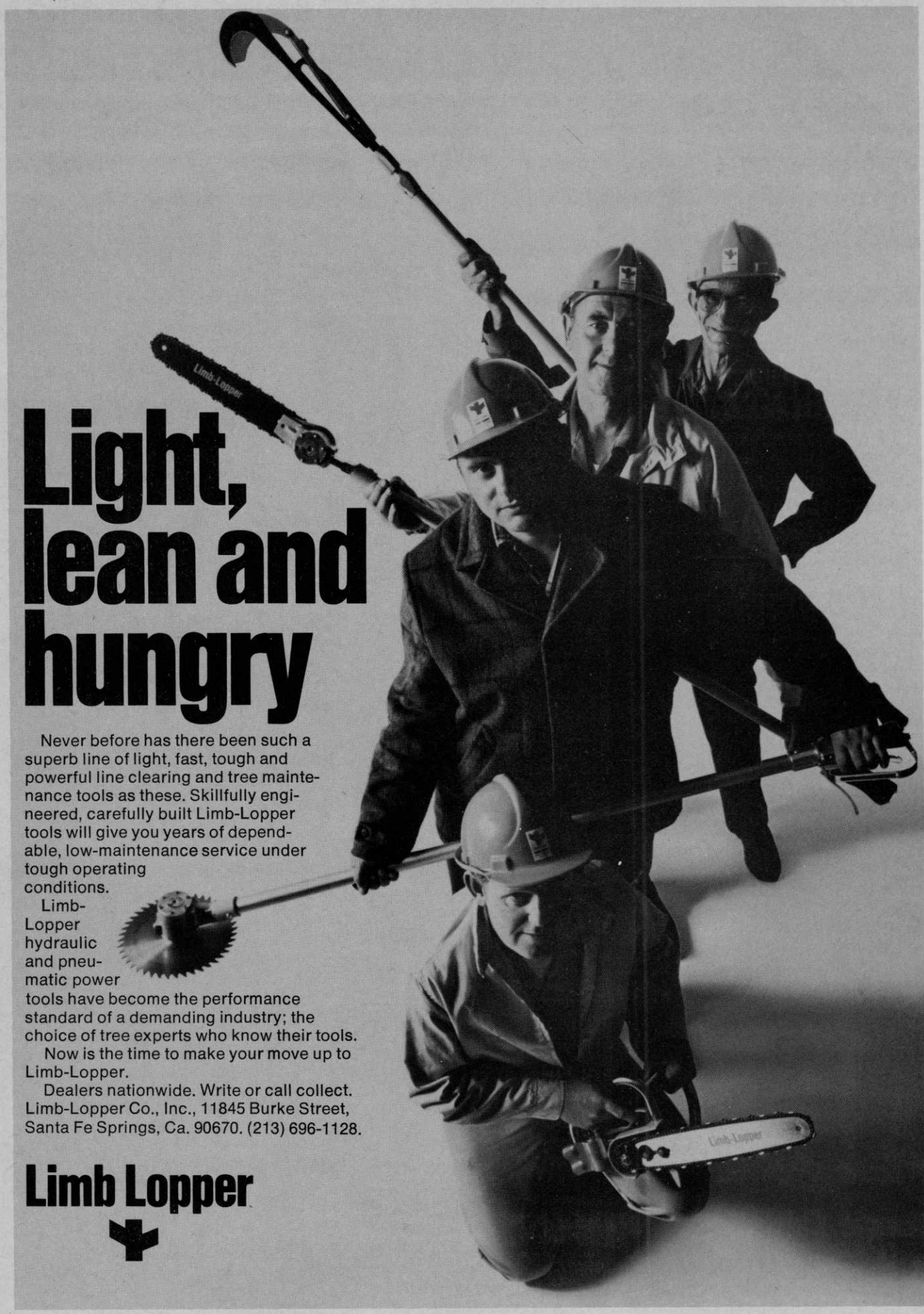
As the trend toward subdivision has accelerated, the number of customers has increased vastly, while the expenditure per customer has naturally declined. However, the greater density of population with accompanying bulldozer blight and changing water tables has resulted in a tremendous overall growth of the need for tree care. It is estimated that 90% of the existing trees in areas which have been subdivided for residential construction require tree care if they are to survive.

Another factor contributing to growth has been the flight of business from the central city to the suburbs. A corporation need not be concerned with trees in a skyscraper location, but put it into a campus-like atmosphere and it immediately becomes a potential tree-care customer.

For the Bartlett Company, at least, this meant a continuing growth right through the 1970 business slump so that 1971 has been one of Bartlett's best years—this despite a decline in the investment of utilities in right-of-way maintenance.

Education is the key to the industry's being able to fully capitalize on its growth potential. Bartlett summarized in a recent interview. We must educate tree owners to the fact that trees, in addition to being an ecological and aesthetic asset, are worth real money and cannot be easily replaced. They must understand that trees, like human beings, are susceptible to a myriad of diseases and pestilences which can be diagnosed and cured by scientific means.

We must educate young people so that they will want to acquire the skills and knowledge needed to protect our trees and, incidentally, find a satisfying career for themselves.



Light, lean and hungry

Never before has there been such a superb line of light, fast, tough and powerful line clearing and tree maintenance tools as these. Skillfully engineered, carefully built Limb-Lopper tools will give you years of dependable, low-maintenance service under tough operating conditions.

Limb-Lopper hydraulic and pneumatic power tools have become the performance standard of a demanding industry; the choice of tree experts who know their tools.

Now is the time to make your move up to Limb-Lopper.

Dealers nationwide. Write or call collect. Limb-Lopper Co., Inc., 11845 Burke Street, Santa Fe Springs, Ca. 90670. (213) 696-1128.

Limb Lopper

For More Details Circle (112) on Reply Card

Try Tandex on your own impartial panel of weed control experts.

Tandex can give you a more economical ground maintenance program.

Tandex is a soil sterilant. And it's proven its weed-killing power for use around industrial plant sites, storage areas, lumberyards, tank farms and the like. Broadleaf weeds, grasses, even woody species die when Tandex is applied. And its power persists for a season or longer.

Spray wettable Tandex powder (WP 80) or use the granular form. The handy five-pound plastic container is especially convenient. Tandex can be combined with fortified oils and other herbicides for special control situations.

Write to Department A, Niagara Chemical Division, FMC Corporation, Middleport, N.Y. 14105.

Tandex®

fmc® Industrial Chemicals, Niagara Chemical Division, Middleport, New York 14105

For More Details Circle (134) on Reply Card

WEEDS TREES and TURF®

1972 SUPPLIERS GUIDE AND EQUIPMENT DIRECTORY

1971 ARTICLE INDEX

Weeds Trees and Turf presents in this section its annual guide to suppliers of vegetation control chemicals and equipment in urban/industrial areas. There is a mixture of common and registered trade names, unavoidable since usage and recommendations of researchers refer to a particular chemical by one or the other, depending upon the newness of the compound, whether its common name is easier to use, or industry acceptance. Readers' comments and suggestions are invited to help improve future editions. Keep this year's guide handy for frequent use.

An index to editorial content for 1971 follows the Suppliers' Guide. Subjects and titles, cross-references, are listed for all major features, news stories, conference reports, editorial opinion, columns and letters. Contributing editors are listed at the end of the index.

HERBICIDES

SOIL STERILANTS

AMIZINE

Amchem Products, Inc.
W. R. Grace & Co.
Nalco Chemical Co.

AMMONIUM SULFATE

Aceto Chemical Co., Inc.
The J. J. Dill Co.
W. R. Grace & Co.
Phillips Petroleum Co.
Summers Fertilizers, Inc.

ASSAULT

West Chemical Products Co.
Southern Mill Creek Products Co., Inc.

ATRATOL

Geigy Agricultural Chemicals
Southern Mill Creek, lnc.

ATRAZINE

The J. J. Dill Co.
Geigy Agricultural Chemicals
W. R. Grace & Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
Nalco Chemical Co.
O. M. Scott & Sons Co.
Southern Mill Creek Products Co., Inc.
U.S.S. Agri-Chemicals Div.

BARON

Dow Chemical Co.

BORATE COMPOUNDS

American Potash & Chemical Corp.
Chipman Div., Rhodia Inc.
Crown Chemicals
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Nalco Chemical Co.
Southern Mill Creek Products Co., Inc.
U.S. Borax & Chemical Corp.

BORATE MIXTURES

Chipman Div., Rhodia Inc.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Nalco Chemical Co.
U.S. Borax & Chemical Corp.

BO-RID

The R. H. Bogle Co.
Hub States Chemical & Equip. Corp.

BOROCIL IV

U. S. Borax & Chemical Corp.

BROMACIL (HYVAR X)

Crown Chemicals
The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
Hub States Chemical & Equip. Corp.
Nalco Chemical Co.
Southern Mill Creek Products Co., Inc.
Stull Chemical Co.

CALCIUM CHLORIDE

The Dow Chemical Co.
Fence Painter Corp.
Pittsburgh Plate Glass Co.

CHLOREA

Chipman Div., Rhodia Inc.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.

DALAPON

Aceto Chemical Co., Inc.
The J. J. Dill Co.
W. R. Grace & Co.
Nalco Chemical Co.
Southern Mill Creek Products Co., Inc.

DIURON

The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
Nalco Chemical Co.
Southern Mill Creek Products Co., Inc.

D-LETE

The J. J. Dill Co.

ERBON

The Dow Chemical Co.
Nalco Chemical Co.

FENAC

Amchem Products, Inc.
Nalco Chemical Co.

FENAVAR

Amchem Products, Inc.

HCA

Allied Chemical Corp.
Southern Mill Creek Products Co., Inc.

HIBOR

Southern Mill Creek Products Co., Inc.
U.S. Borax & Chemical Corp.

KROVART

E. I. DuPont deNemours & Co., Inc.

MBC

Hooker Chemical Corp.

MONOBOR-CHLORATE

Green Lawn Laboratories, Inc.
Southern Mill Creek Products Co., Inc.
U.S Borax & Chemical Corp.

MONURON

The J. J. Dill Co.
C. B. Dolge Co.
E. I. duPont de Nemours & Co., Inc.
Green Lawn Laboratories, Inc.
Nalco Chemical Co.
Southern Mill Creek Products Co., Inc.

PBA

Nalco Chemical Co.

POLYBOR-CHLORATE

U.S. Borax & Chemical Corp.

PRAMITOL

The J. J. Dill Co.
Geigy Agricultural Chemicals
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
Nalco Chemical Co.
B. G. Pratt Co.
Southern Mill Creek Products Co., Inc.

PHYTAR 560, 160

The Ansul Co.
Southern Mill Creek Products Co., Inc.

SIMAZINE

The J. J. Dill Co.
Geigy Agricultural Chemicals
W. R. Grace & Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
Nalco Chemical Co.
Southern Mill Creek Products Co., Inc.

SODIUM ARSENITE

Allied Chemical Corp.
R. H. Bogle Co.
Chevron Chemical Co., Ortho Div.
Chipman Div., Rhodia, Inc.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Miller Chemical & Fertilizer Corp.
Pennwalt Chemicals Corp.
B. G. Pratt Co.
Southern Mill Creek Products Co., Inc.

SODIUM CHLORATE

Chipman Div., Rhodia, Inc.
The J. J. Dill Co.
W. R. Grace & Co.
Green Lawn Laboratories, Inc.
Hooker Chemical Co.
Nalco Chemical Co.
Pennwalt Chemicals Corp.

TBA

E. I. du Pont de Nemours & Co., Inc.
Nalco Chemical Co.
Southern Mill Creek Products Co., Inc.

TCA

Allied Chemical Corp.
Amchem Products, Inc.
The J. J. Dill Co.
The Dow Chemical Co.
Fence Painter Corp.
Nalco Chemical Co.
Robeco Chemicals, Inc.
Southern Mill Creek Products Co., Inc.

TRITAC

Great Lakes Chemical Div.

TRITAC-D

Great Lakes Chemical Div.

URAB

Allied Chemical Corp.

UREABOR

Green Lawn Laboratories, Inc.
Southern Mill Creek Products Co., Inc.
U.S. Borax & Chemical Corp.

UROX

Allied Chemical Corp.
Green Lawn Laboratories, Inc.
Southern Mill Creek Products Co., Inc.
West Chemical Products, Inc.

VACATE

Diamond Shamrock Chemical Co.

VAPAM

Stauffer Chemical Co.
Southern Mill Creek Products Co., Inc.

WEED FREE G

Chapman Chemical Co.

WEED OUT

Fence Painter Corp.

PREEMERGENCE

●

ALANAP

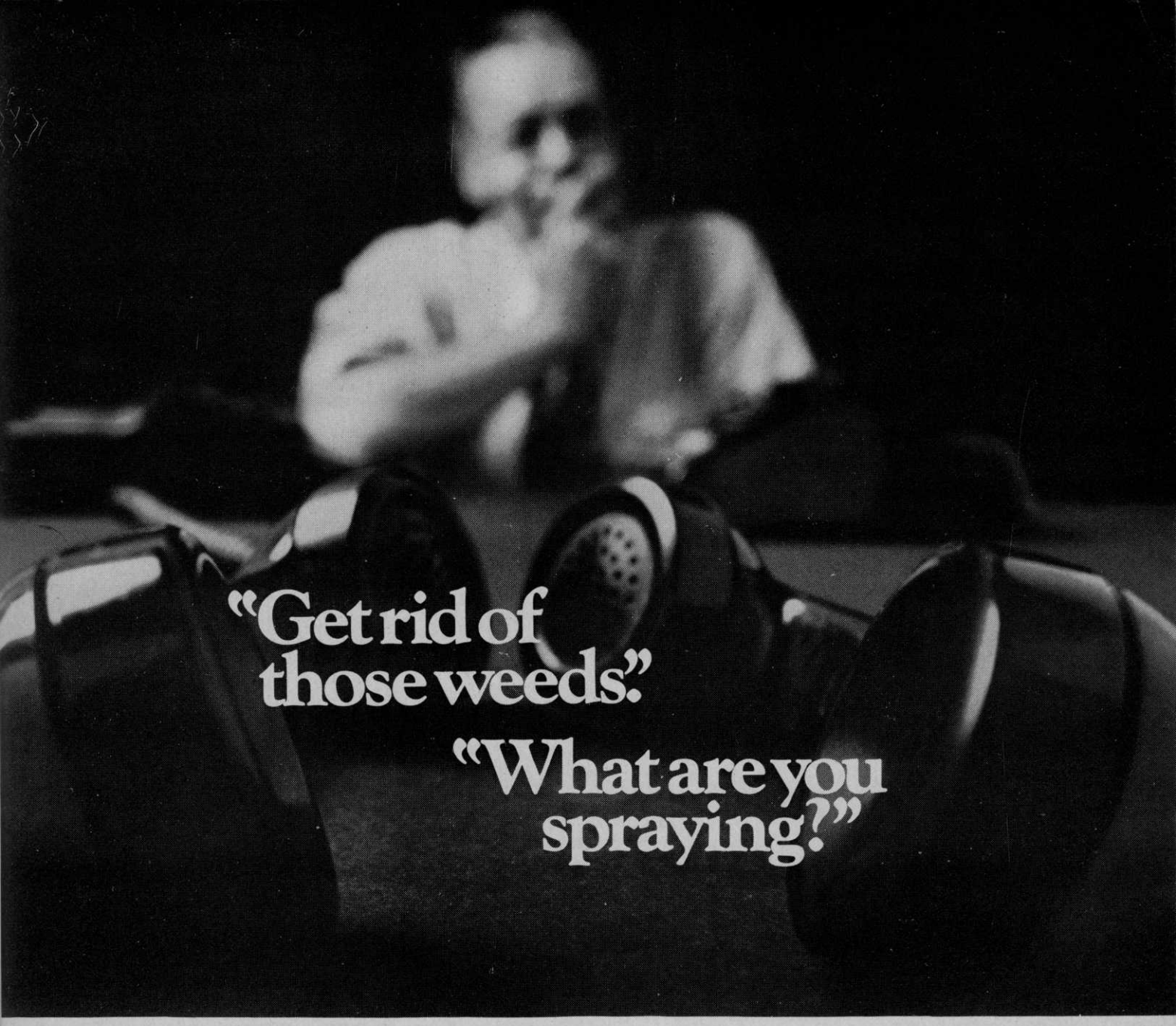
W. R. Grace & Co.
Thompson-Hayward Chemical Co.
Uniroyal Chemical, Div. of Uniroyal, Inc.

ALANAP PLUS

Uniroyal Chemical, Div. of Uniroyal, Inc.

AMIBEN

Amchem Products, Inc.



Geigy herbicides can satisfy both sides.

It's tough being the man in the middle when you're armed only with excuses.

Geigy herbicides give you something better. Answers.

Answers to all kinds of weed and vegetation management problems.

Answers that should satisfy both sides: Those concerned about stopping weed pollution, and those concerned about what you're spraying.

How? After Geigy herbicides do their job, nature breaks them down. This helps you enhance the environment without injuring it. Which makes your job easier. And more satisfying.

You've got AAtrex®, Princep®, Atratol® and Pramitol® to choose from. In wettable powder, emulsifiable, pelleted and granular forms. Each is suitable for various jobs and conditions. But all give long-term, effective performance. Singly or as the foundation for combinations of chemicals.

For More Details Circle (139) on Reply Card

So if you'd like the help of a Geigy representative in planning a vegetation management program that gives you answers, not excuses, please send this coupon to: The Industrial Weed Control Department, Geigy Agricultural Chemicals, Division of CIBA-GEIGY Corporation, Ardsley, New York 10502.

Name _____

Position _____

Company _____

Address _____

_____ Zip _____

AZAK

Hercules Incorporated
Summers Fertilizers, Inc.

BALAN

Elanco Products Co.
Southern Mill Creek Products Co., Inc.

BANDANE

The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Lawnhouse Products, Inc.
O. M. Scott & Sons Co.
Velsicol Chemical Corp.

BANEFIN

Elanco Products Co.
U.S.S. Agri-Chemicals Div.

BETASAN

The J. J. Dill Co.
W. R. Grace & Co.
O. M. Scott & Sons Co.
Stauffer Chemical Co.
U.S.S. Agri-Chemicals Div.

CALCIUM PROPYL ARSENATE

Boyle-Midway Div.
Green Lawn Laboratories, Inc.
Vineland Chemical Co.

CASORON

W. R. Grace & Co.
Great Lakes Chemical Div.
Thompson-Hayward Chemical Co.

CHLORDANE

Armour Agricultural Chemical Co.
Boyle-Midway Div.
Chipman Div., Rhodia, Inc.
Crown Chemicals
Ross Daniels, Inc.
The J. J. Dill Co.
C. B. Dolge Co.
Faesey & Besthoff, Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hub States Chemical & Equip. Corp.
Michlin Chemical Corp.
Niagara Chem. Div., FMC Corp.
S. B. Penick & Co.
B. G. Pratt Co.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.
U.S.S. Agri-Chemicals Div.
Velsicol Chemical Corp.

CIPC

Pittsburgh Plate Glass Co.
Thompson-Hayward Chemical Co.

DACTHAL

Amchem Products Inc.
Armour Agricultural Chemical Co.
Diamond Shamrock Chemical Co.
The J. J. Dill Co.
Fence Painter Corp.
W. R. Grace & Co.
Great Lakes Chemical Div.
Lawnhouse Products, Inc.
Southern Mill Creek Products Co., Inc.
Thompson-Hayward Chemical Co.
U.S.S. Agri-Chemicals Div.

DIPHENAMID

Elanco Products Co.
W. R. Grace & Co.
Southern Mill Creek Products Co., Inc.
TUCO Products Co.

DNBP

Aceto Chemical Co. Inc.
The Dow Chemical Co.
W. R. Grace & Co.
Niagara Chemical Div., FMC corp.

DYNAP

Uniroyal Chemical, Div. of Uniroyal, Inc.

DYMID

Elanco Products Co.

ENDOTHAL

The J. J. Dill Co.
W. R. Grace & Co.
Pennwalt Chemicals Corp.

EPTAM

Boyle-Midway Div.
The J. J. Dill Co.
Faesey & Besthoff, Inc.
W. R. Grace & Co.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.
U.S.S. Agri-Chemicals Div.

HERBAN

W. R. Grace & Co.
Hercules Incorporated
Summers Fertilizers, Inc.
Thompson-Hayward Chemical Co.

HERBISAN

Roberts Chemicals, Inc.

IPC

Aceto Chemical Co. Inc.
Pittsburgh Plate Glass Co.

LEAD ARSENATE

Aceto Chemical Co. Inc.
Allied Chemical Corp.
Chevron Chemical Co., Ortho Div.
Chipman Div., Rhodia, Inc.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Niagara Chemical Div., FMC Corp.
Southern Mill Creek Products Co., Inc.
Summers Fertilizers, Inc.

LINURON

The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.

PREMERGE

Dow Chemical Co.
Southern Mill Creek Products Co., Inc.

PLANAVIN

Shell Chemical Co.

PRE-SAN

Mallinckrodt Chemical Works
Southern Mill Creek Products Co., Inc.

PYRAMIN 80-W

Amchem Products, Inc.

SESONE

Amchem Products, Inc.

SIMAZINE

(See Soil Sterilants)

TANDEX

Niagara Chemical Div., FMC Corp.

TILLAM

W. R. Grace & Co.
Stauffer Chemical Co.

TRICALCIUM ARSENATE

Chipman Chemical Div., Rodia, Inc.
The J. J. Dill Co.
Pennwalt Chemicals Corp.
The Sherwin-Williams Co.

TRIFLURALIN (TREFLAN)

Elanco Products Co.
W. R. Grace & Co.
Southern Mill Creek Products Co., Inc.
Weyerhaeuser Co.

TUPERSAN (SIDURON)

Amchem Products, Inc.
Armour Agricultural Chemical Co.
The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
Summers Fertilizers, Inc.
U.S.S. Agri-Chemicals Div.

●

POSTEMERGENCE

●

AMITROLE-T

Amchem Products, Inc.
American Cyanamid Co.
The J. J. Dill Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Nalco Chemical Co.
Southern Mill Creek Products Co., Inc.

AMMONIUM METHYL ARSONATE

W. A. Cleary Corp.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Nalco Chemical Co.
Southern Mill Creek Products Co., Inc.

AMMONIUM METHYL ARSONATE PLUS 2,4-D

W. A. Cleary Corp.
Southern Mill Creek Products Co., Inc.

AMMONIUM SULFAMATE

The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
Nalco Chemical Co.
Southern Mill Creek Products Co., Inc.

ANSAR 529, 170, 8100

The Ansul Co.
Southern Mill Creek Products Co., Inc.

ARSENIC ACID

Chevron Chemical Co., Ortho Div.
Chipman Div., Rhodia, Inc.
Pennwalt Chemical Corp.
The Sherwin-Williams Co.

ATRAZINE

(See Soil Sterilants)

BANVEL-D (DICAMBA)

Amchem Products, Inc.
The J. J. Dill Co.
Dow Chemical Co.
Lawnhouse Products, Inc.
O. M. Scott & Sons Co.
Southern Mill Creek Products Co., Inc.
Velsicol Chemical Corp.

BETASAN

The J. J. Dill Co.
W. R. Grace & Co.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.

BORATE COMPOUNDS

(See Soil Sterilants)

BROMACIL

(See Soil Sterilants)

BRONATE

Chipman Chemical Co., Inc.

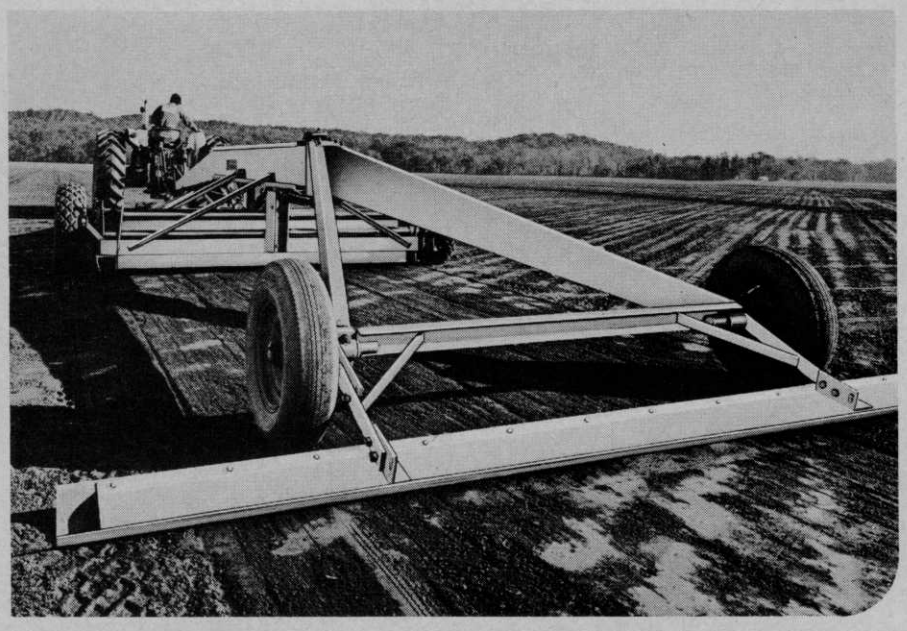


Table Top Surfaces

Leading sod farmers are using Eversman Automatic Land Levelers to make smooth, uniform seedbeds.

Also for golf courses, cemeteries, landscape architects.

Eversman Smoothers combine in one machine a field plane, open bottom scraper and a complete tillage tool for superior seedbed preparation. Smooth, level fields make possible even seeding, uniform germination with uniform turf maturity and faster, precision harvesting on fields that are easy on equipment.

The exclusive EVERSMAN Crank Axle.

The secret of the success of Eversman Land Levelers is the exclusive crank axle design. This principle is as simple as a child's teeter-totter. When one end goes up—the other goes down.

The leveler's main wheels are placed outside the cutting blade for a specific reason. These wheels serve as *feeler gauges*. They follow the contour of the field and automatically adjust the cutting blade to the correct depth—independently of the tractor driver.

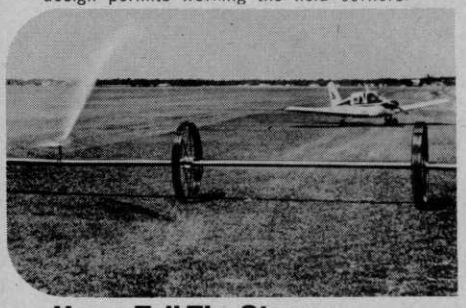
When these gauge wheels come to a high spot or ridge, they ride up on top of the ridge and this forces the blade to lower and cut through the ridge. The soil is then carried along by the blade until the gauge wheels go into a hole or depression in the field, which forces the blade to raise and fill the depression.

Eversman offers land smoothers in sizes and price ranges to accommodate your size operation and your regular wheel tractors, from 3-plow to 5-plow models. (Blade widths 9' or 12', lengths of 32' or 45'.) Write for folder which gives complete information.

Eversman Manufacturing Company, Dept. F16, Curtis & Fifth Streets, Denver, Colorado 80204

Eversman

The exclusive Eversman "Hinged Frame" design permits working the field corners.



Users Tell The Story

"We have been using Eversman levelers for over fifteen years," writes Dale Habenicht of H & E Sod Nursery, Inc., Tinley Park, Illinois. "Several other types were tried, but we've always found the Eversman to be the most satisfactory. They give us the smooth surface we are looking for—with easy maneuverability.

"The H & E Sod Nursery operates three farms consisting of 1300 acres. I commute between farms with my Cherokee 180 and use the sod fields that have been leveled by the Eversman for landing strips."

"We could not properly prepare our seedbeds without the Eversman Leveler," writes Parker Sherling, Manager of Princeton Turf Farms, Inc., Centreville, Maryland.

"In preparing our fields," Parker Sherling continues, "we instruct our operators that a field is not ready until a car can be driven in any direction at 40 miles per hour over the field. It's a joke, but we actually bring our fields to this condition.

"Our operators have also developed the skill where we can shape our drainage ditches with the same machines, thus saving the rental of additional equipment."

BUCTRIL

Chipman Chemical Co., Inc.

CACODYLIC ACID

The Ansul Co.
Nalco Chemical Co.
O. M. Scott & Sons Co.
Southern Mill Creek Products Co., Inc.

CALCIUM ACID METHYL ARSENATE

The J. J. Dill Co.
Nalco Chemical Co.
Vineland Chemical Co.

CALCIUM PROPYL ARSENATE

(See Preemergence Herbicides)

CYTROL

American Cyanamid Co.
The J. J. Dill Co.

DACAMINE

Diamond Shamrock Chemical Co.
The J. J. Dill Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Southern Mill Creek Products Co., Inc.

DACAMINE 2D/2T,4T

Diamond Shamrock Chemical Co.

DACONATE

The Diamond Shamrock Co.

DALAPON

(See Soil Sterilants)

DINITRO COMPOUNDS

Chevron Chemical Co., Ortho Div.
The Dow Chemical Co.
W. R. Grace & Co.
Niagara Chemical Div., FMC Corp.

DIURON

(See Soil Sterilants)

DMA (DSMA)

The Ansul Co.
Chevron Chemical Co., Ortho Div.
W. A. Cleary Corp.
The Diamond Shamrock Chemical Co.
The J. J. Dill Co.
The Dow Chemical Co.
Lawnhouse Products, Inc.
Nalco Chemical Co.
Southern Mill Creek Products Co., Inc.
U.S.S. Agri-Chemicals Div.
Vineland Chemical Co.

DOWPON

The Dow Chemical Co.
Southern Mill Creek Products Co., Inc.

ENDOTHAL

(See Preemergence Herbicides)

EPTAM

(See Preemergence Herbicides)

FENAC

(See Soil Sterilants)

FENURON

The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
Nalco Chemical Co.

HCA

(See Soil Sterilants)

HYVAR X BROMACIL

The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
Hub States Chemical & Equip. Corp.
Southern Mill Creek Products Co., Inc.

LINURON

(See Preemergence Herbicides)

MCPA

Aceto Chemical Co., Inc.
Amchem Products, Inc.
Chipman Div., Rhodia Inc.
The Dow Chemical Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Nalco Chemical Co.

MCPP

Aceto Chemical Co., Inc.
Amchem Products Inc.
Chipman Div., Rhodia Inc.
W. A. Cleary Corp.
The J. J. Dill Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Nor-Am Agric. Products Co.
Shepard Chemical Industries, Inc.
U.S.S. Agri-Chemicals Div.
Vineland Chemical Co.

MILOGARD (PROPAZINE)

The J. J. Dill Co.
Geigy Agricultural Chemicals

MONURON

(See Soil Sterilants)

MSMA

Allied Chemical Corp.
The Ansul Co.
Chapman Chemical Co.
W. A. Cleary Corp.
Diamond Shamrock Chemical Co.
Great Lakes Chemical Div.
Nalco Chemical Co.
Southern Mill Creek Products Co., Inc.
Vineland Chemical Co.

PARAQUAT

Chevron Chemical Co., Ortho Div.

PENTACHLOROPHENOL

Chapman Chemical Co.
Crown Chemicals
The J. J. Dill Co.
The Dow Chemical Co.
W. R. Grace & Co.
Hub States Chemical & Equip. Corp.
Nalco Chemical Co.
Reichhold Chemicals, Inc.
Southern Mill Creek Products Co., Inc.
Thompson-Hayward Chemical Co.
Vulcan Materials Co.

PHENYLMERCURIC ACETATE (PMA)

Chemley Products
Chipman Div., Rhodia Inc.
W. A. Cleary Corp.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Mallinckrodt Chemical Works
O. M. Scott & Sons
Southern Mill Creek Products Co., Inc.
U.S.S. Agri-Chemicals Div.
Vineland Chemical Co.

PRAMITOL

(See Soil Sterilants)

PROPAZINE

The J. J. Dill Co.
W. R. Grace & Co.

PYRAMIN 80-W

(See Preemergence Herbicides)
Boyle-Midway Div.

SILVEX

Amchem Products Inc.
Boyle-Midway Div.
Chipman Div., Rhodia, Inc.
Diamond Shamrock Chemicals Co.
The J. J. Dill Co.
The Dow Chemical Co.
Green Lawn Laboratories, Inc.
Hercules Incorporated
Nalco Chemical Co.
B. G. Pratt Co.
Southern Mill Creek Products Co., Inc.

SODIUM ARSENITE

(See Soil Sterilants)

SODIUM CACODYLATE

The Ansul Co.
Nalco Chemical Co.

TCA

(See Soil Sterilants)

THISTROL

Amchem Products, Inc.

TILLAM

(See Preemergence Herbicides)

TORDON

The Dow Chemical Co.
W. R. Grace & Co.

TRYSBEN (TBA)

The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
Nalco Chemical Co.

2,4-D

Amchem Products, Inc.
Boyle-Midway Div.
Chevron Chemical Co., Ortho Div.
Chipman Div., Rhodia, Inc.
Crown Chemicals
Diamond Shamrock Chemical Co.
The J. J. Dill Co.
C. B. Dolge Co.
The Dow Chemical Co.
Fence Painter Corp.
W. R. Grace & Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hercules Incorporated
Hub States Chemical & Equip. Co.
Lawnhouse Products, Inc.
Monsanto Co.
Nalco Chemical Co.
Pennwalt Chemical Corp.
B. G. Pratt Co.
O. M. Scott & Sons Co.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.
Stull Chemical Co.
Summers Fertilizers, Inc.
Thompson-Hayward Chemical Co.
U.S.S. Agri-Chemicals Div.
West Chemical Products Inc.

2,4,5-T

Amchem Products, Inc.
Central Solvents & Chemicals Co.
Chevron Chemical Co., Ortho Div.
Chipman Div., Rhodia Inc.
Diamond Shamrock Chemical Co.
The J. J. Dill Co.
The Dow Chemical Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hercules Incorporated
Hub States Chemical & Equip. Co.
Monsanto Co.
Nalco Chemical Co.
B. G. Pratt Co.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.

Golf course superintendents and other turf experts throughout the country rely on these outstanding Chemagro Blue Bullseye chemicals to keep their grass in first-class condition throughout the year:

®**DYRENE** 50% Wettable Powder turf fungicide provides outstanding protection against leaf spot, melting-out, copper spot, rust, *Schlerotinia* dollar spot, brown patch and snow mold. Will not clog or corrode spray equipment. No unsightly deposit. Will not stain fabric or shoes when dry.

®**DASANIT** nematicide provides fast contact and long-lasting residual control of nematodes. Merely apply with a granular applicator and drench the soil with water.

®**DYLOX** 80% Soluble Powder insecticide provides outstanding control of sod webworms. Three spray applications at monthly intervals are recommended.

®**BAYGON** 70% Wettable Powder insecticide provides economical, long-lasting control of certain destructive insects attacking turf. Sprays are easy to mix and apply.

®**DEXON** 35% Wettable Powder fungicide is unsurpassed for long-lasting control of *Pythium.* Will not cause leaf burn when applied as directed. Compatible with other turf pesticides.

Contact your Chemagro supplier *now* for full information about these time-tested turf chemicals.

Chemagro, A Division of Baychem Corporation, Box 4913, Kansas City, Missouri 64120.

Chemagro

Everybody has turf problems. Chemagro has turf solutions.

For More Details Circle (102) on Reply Card

Stull Chemical Co.
Thompson-Hayward Chemical Co.
U.S.S. Agri-Chemicals Div.

UROX

(See Soil Sterilants)

WEED FREE SW, 235

Chapman Chemical Co.

●

ALGAECIDES

●

CUTRINE

Applied Biochemists, Inc.

SWIMTRINE

Applied Biochemists, Inc.

●

AQUATIC HERBICIDES

●

AMITROLE

Amchem Products, Inc.
American Cyanamid Co.
The J. J. Dill Co.
Great Lakes Chemical Div.
Southern Mill Creek Products Co., Inc.

AMITROLE-T

(See Preemergence Herbicides)

AMMONIUM SULFAMATE

(See Preemergence Herbicides)

AQUALIN

Shell Chemical Co.

AQUATHOL

The J. J. Dill Co.
W. R. Grace & Co.
Hub States Chemical & Equip. Corp.
Pennwalt Chemicals Corp.
Southern Mill Creek Products Co., Inc.
U.S.S. Agri-Chemicals Div.

AQUATHOL PLUS

The J. J. Dill Co.
W. R. Grace & Co.
Pennwalt Chemicals Corp.
U.S.S. Agri. Chemicals Div.

CALCIUM HYPOCHLORITE

Pennwalt Chemicals Corp.
Pittsburgh Plate Glass Co.
Robeco Chemicals, Inc.

CASORON

(See Preemergence Herbicides)

COPPER SULFATE

Chevron Chemical Co., Ortho Div.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Niagara Chemical Div., FMC Corp.
Phelps Dodge Refining Corp.
Robeco Chemicals, Inc.
Southern Mill Creek Products Co., Inc.
Vineland Laboratories, Inc.

CROP RIDER (20% Aqua Granules)

Diamond Shamrock Chemical Co.

DACAMINE

Diamond Shamrock Chemical Co.
The J. J. Dill Co.
Great Lakes Chemical Div.
Southern Mill Creek Products Co., Inc.

DALAPON

(See Soil Sterilants)

DICHLONE

Aceto Chemical Co. Inc.
Allied Chemical Corp.
The J. J. Dill Co.
Naugatuck Chemical Div.
Niagara Chemical Div., FMC Corp.

DIQUAT

Chevron Chemical Co., Ortho Div.
The J. J. Dill Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hub States Chemical & Equip. Corp.
Southern Mill Creek Products Co., Inc.

DIURON

The J. J. Dill Co.
Southern Mill Creek Products Co., Inc.

ERBON

The Dow Chemical Co.

FENAC

Amchem Products, Inc.

HYDROTHOL

The J. J. Dill Co.
Pennwalt Chemicals Corp.

MCPA

(See Postemergence Herbicides)

ORTHODICHLOROBENZENE

Pittsburgh Plate Glass Co.
Robeco Chemicals, Inc.

POTASSIUM ENDOTHAL

The J. J. Dill Co.
Pennwalt Chemicals Corp.

PHYGON XL

The J. J. Dill Co.

SILVEX

(See Postemergence Herbicides)

SODIUM ARSENITE

(See Soil Sterilants)

2,4-D

(See Postemergence Herbicides)

2,4,5-T

(See Postemergence Herbicides)

2-(2,4-DB)

Amchem Products, Inc.
Chipman Div., Rhodia, Inc.
Southern Mill Creek Products Co., Inc.
Thompson-Hayward Chemical Co.

COMMERCIAL FERTILIZERS

NITROGEN SOURCES

●

—Fast Release—

●

AMMONIA, ANHYDROUS

Agrico Chemical Co.
Allied Chemical Corp.
American Cyanamid Co.
Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
Columbia Nitrogen Corp.
The Dow Chemical Co.
E. I. duPont de Nemours & Co., Inc.
W. R. Grace & Co.
Hercules Incorporated
Monsanto Co.
Phillips Petroleum Co.
Pittsburgh Plate Glass Co.
Sohio Chemical Co.
Tennessee Corp.
U.S.S. Agri-Chemicals Div.
Vistron Corp.
Vulcan Materials Co.

AMMONIUM NITRATE

Agrico Chemical Co.
Allied Chemical Corp.
American Cyanamid Co.
Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
Columbia Nitrogen Corp.
W. R. Grace & Co.
Green Lawn Laboratories, Inc.
Hercules Incorporated
International Minerals & Chem. Corp.
Phillips Petroleum Co.
Sohio Chemical Co.
Southern Mill Creek Products Co., Inc.
Summers Fertilizers, Inc.
U.S.S. Agri-Chemicals Div.
Vistron Corp.

AMMONIUM PHOSPHATE

Agrico Chemical Co.
Allied Chemical Corp.
American Cyanamid Co.
Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
Fertilla Co.
W. R. Grace & Co.
Green Lawn Laboratories, Inc.
Monsanto Co.
Phillips Petroleum Co.
Stauffer Chemical Co.
Summers Fertilizers, Inc.
Tennessee Corp.

AMMONIUM SULFATE

Agrico Chemical Co.
Allied Chemical Corp.
American Cyanamid Co.
Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
Columbia Nitrogen Corp.
The Dow Chemical Co.
Fertilla Co.
W. R. Grace & Co.
Green Lawn Laboratories, Inc.
Phillips Petroleum Co.
Rohm and Haas Co.
Summers Fertilizers, Inc.
U.S.S. Agri-Chemicals Div.
Vistron Corp.

AQUA AMMONIA

Allied Chemical Corp.
American Cyanamid Co.
Best Fertilizers Co.
Chevron Chemical Co., Ortho Div.
Columbia Nitrogen Corp.
The Dow Chemical Co.
W. R. Grace & Co.
Green Lawn Laboratories, Inc.
Hercules Incorporated
Pennwalt Chemicals Corp.
Sohio Chemical Co.
Vistron Corp.

CALCIUM NITRATE

Best Fertilizers Co.
Columbia Nitrogen Corp.
Green Lawn Laboratories, Inc.
Southern Mill Creek Products Co., Inc.
U.S.S. Agri-Chemicals Div.

PRO-TURF

O. M. Scott & Sons

PRECISION TREE HARVESTER

PRECISION MODEL 75 TREE HARVESTER

A completely self-supporting system for converting entire trees, trunks, limbs, leaves and all into small chips in a few seconds. Feed through rate is approximately 125 feet per minute. Maximum opening in spout is 22" diameter. No outside power source is required.

FEATURES:

1. 75" — 3 knife Precision Chipper powered by Cummins 310 HP diesel engine.
2. Hydraulically powered crushing rolls.
3. Heavy duty articulated knuckle boom loader with 20' reach and 400 degree swing, capacity at 15' is 7504 pounds.
4. Hydraulically powered chip discharge spout for spreading or loading chips.
5. Chipper hood opens easily with one man by hydraulic hand pump.
6. Air system built in for air wrench to change knives.
7. Heavy duty stabilizers powered hydraulically on all four corners. Set up for operation in a matter of minutes.
8. Air brakes and lights to ICC regulation.
9. Hydraulically powered reversing conveyor 25' long with 6110 chain.
10. Custom built trailer 35' long, 8' wide and 12'9" overall height.
11. Wheels are dual tandem and 1000 x 20.

Weight approximately 67,000 lbs.

— Announcement —

After a quarter-century of building custom chipper equipment for the forest products industry, all of which has been of a stationary design, the company has made the decision to make precision equipment — large in design for major work similar to that demanded by the forest products industry, yet mobile enough to serve the major tree company, the municipality and others with big tree removal jobs.

The Management

PRECISION CHIPPER CORPORATION

2934 35th AVENUE, NORTH
BIRMINGHAM, ALABAMA 35207
AC 205 328-4776

For More Details Circle (145) on Reply Card

FOR POSITIVE WEED CONTROL **TRIMEC®** TURF HERBICIDE MAKES THE DIFFERENCE!

Now you can have positive control of hard-to-kill weeds in cool as well as warm temperatures on a variety of 2,4-D resistant weeds.

Trimec turf herbicide is a patented combination of herbicides that display "synergism" and controls hard-to-kill weeds at lower rates than normally needed with the individual herbicides you're now using.

Gordon's Fairway Broadleaf Herbicide is in a class by itself. It contains 2,4-D, MCPP and Dicamba in a patented formulation which controls virtually all broadleaf weed species, while the individual herbicide components do not. It is the patented "synergism" of the formulation that makes the difference.

Call 913/342-8780 today, or write Gordon's about new Trimec Fairway Broadleaf Herbicide and other Gordon turf care products.

GORDON'S Chemicals®

PBI-GORDON CORPORATION

300 South Third St.
Kansas City, Kansas 66118
A.C. 913/342-8780

TRIMEC®
TURF HERBICIDE
MAKES THE DIFFERENCE!

SODIUM NITRATE

Southern Mill Creek Products Co., Inc.
Summers Fertilizers, Inc.
U.S.S. Agri-Chemicals Div.

UREA

Agrico Chemical Co.
Allied Chemical Corp.
American Cyanamid Co.
Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
Columbia Nitrogen Corp.
E. I. duPont de Nemours & Co., Inc.
Fertilla Co.
W. R. Grace & Co.
Green Lawn Laboratories, Inc.
Hercules Incorporated
International Minerals & Chem. Corp.
Phillips Petroleum Co.
O. M. Scott & Sons
Sohio Chemical Co.
Southern Mill Creek Products Co., Inc.
Summers Fertilizers, Inc.
U.S.S. Agri-Chemicals Div.
Vistron Corp.

●

—Slow Release—

●

UREA-FORMALDEHYDE

Agrico Chemical Co.
Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
E. I. duPont de Nemours & Co., Inc.
Green Lawn Laboratories, Inc.
Hercules Incorporated
International Minerals & Chem. Corp.
Lawnhouse Products, Inc.
O. M. Scott & Sons
S & D Products Inc.
Southern Mill Creek Products Co., Inc.
Summers Fertilizers, Inc.

OSMOCOTE, 18-6-12

Sierra Chemical Co.

●

—Organic Nitrogen—

●

BONE MEAL, STEAMED

Best Fertilizers Co.
Borden Chem., Smith-Douglas Div.
Green Lawn Laboratories, Inc.
Lawnhouse Products, Inc.
Summers Fertilizers, Inc.
Andrew Wilson, Inc.

COTTONSEED MEAL

Borden Chem., Smith-Douglass Div.
Summers Fertilizers, Inc.
Andrew Wilson, Inc.

MANURE, CATTLE

Fertilla Co.

MILORGANITE

Sewerage Commission of Milwaukee

NITRO-GANO

Wilbur-Ellis Co.

PROCESSED SLUDGE

Agrico Chemical Co.
Lawnhouse Products, Inc.
Southern Mill Creek Products Co., Inc.
Summers Fertilizers, Inc.
U.S.S. Agri-Chemicals Div.

●

POTASH SOURCES

●

POTASSIUM CARBONATE

Hooker Chemical Corp.

POTASSIUM CHLORIDE

Agrico Chemical Co.
American Potash & Chemical Corp.
Borden Chem., Smith-Douglass Div.
Green Lawn Laboratories, Inc.
Kalium Chemicals, Ltd.
Phillips Petroleum Co.
Southwest Potash Corp.
Summers Fertilizers, Inc.
U.S. Borax & Chemical Co.

POTASSIUM NITRATE

Agrico Chemical Co.
Borden Chem., Smith-Douglass Div.
Green Lawn Laboratories, Inc.
Southern Mill Creek Products Co., Inc.
Southwest Potash Div.
Summers Fertilizers, Inc.

POTASSIUM SULFATE

American Potash & Chemical Corp.
Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
Green Lawn Laboratories, Inc.
Mallinckrodt Chemical Works
Summers Fertilizers, Inc.

●

MIXED N-P-K TYPES

●

MAG AMP

W. R. Grace & Co.

SOLID

Agrico Chemical Co.
Agriform International Chemicals Inc.
Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
Columbia Nitrogen Corp.
Davison Chemical Div.
Green Lawn Laboratories, Inc.
International Minerals & Chem. Corp.
Loamite Corp.
Northrup, King & Co.
Robert B. Peters Co., Inc.
Phillips Petroleum Co.
Plant Marvel Laboratories
Ra-Pid-Grow Corp.
Southern Mill Creek Products Co., Inc.
Summers Fertilizers, Inc.
Wilbur-Ellis Co.

LIQUID

Agrico Chemical Co.
Best Fertilizers Co.
Chevron Chemical Co. Ortho Div.
Cloro-Spray Corp.
Columbia Nitrogen Corp.
Green Lawn Laboratories, Inc.
Growers Chemical Corp.
Hydroponic Chemical Co., Inc.
Kem Mfg. Co.
Phillips Petroleum Co.
Southern Mill Creek Products Co., Inc.
Wilbur-Ellis Co.

PLASTIC COATED

Borden Chem., Smith-Douglass Div.

●

PHOSPHATE SOURCES

CONCENTRATED

Agrico Chemical Co.
American Cyanamid Co.
Best Fertilizer Co.
Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
Green Lawn Laboratories, Inc.
International Minerals & Chem. Corp.
Phillips Petroleum Co.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.
Tennessee Corp.

ROCK PHOSPHATES

Agrico Chemical Co.
American Cyanamid Co.
Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
W. R. Grace & Co.
International Minerals & Chem. Corp.
Stauffer Chemical Co.
Tennessee Corp.

—Ammonium Phosphates—

AMMONIUM PHOSPHATE-NITRATE

Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
Columbia Nitrogen Corp.
Green Lawn Laboratories, Inc.
Southern Mill Creek Products Co., Inc.

AMMONIUM PHOSPHATE-SULFATE

Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
Columbia Nitrogen Corp.
Phillips Petroleum Co.

AMMONIUM PHOSPHATE-UREA

Borden Chem., Smith-Douglass Div.
Green Lawn Laboratories, Inc.

DIAMMONIUM PHOSPHATE

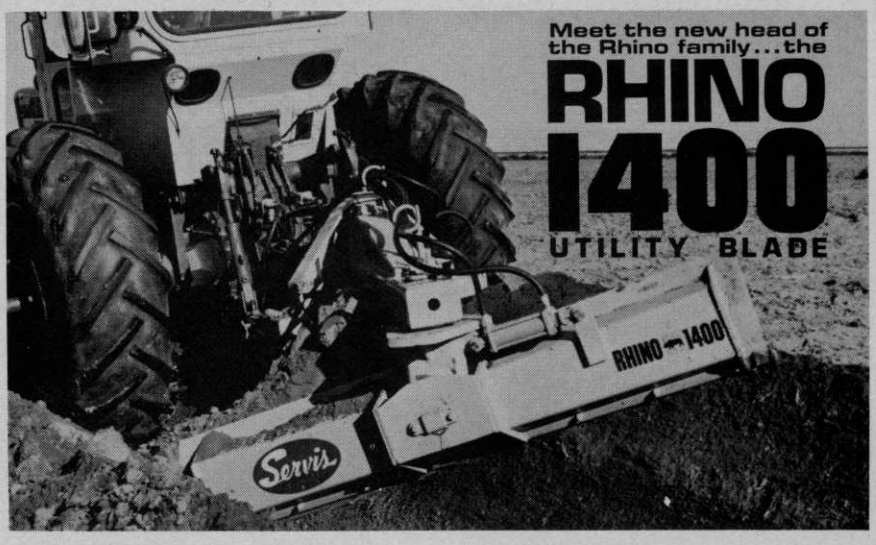
Agrico Chemical Co.
Allied Chemical Corp.
American Cyanamid Co.
Best Fertilizer Co.
Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
Columbia Nitrogen Corp.
W. R. Grace & Co.
Green Lawn Laboratories, Inc.
Hooker Chemical Co.
International Minerals & Chem. Co.
Monsanto Co.
Phillips Petroleum Co.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.
Summers Fertilizers, Inc.
Tennessee Corp.

MONOAMMONIUM PHOSPHATE

Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
W. R. Grace & Co.
Green Lawn Laboratories, Inc.
Stauffer Chemical Co.
Summers Fertilizers, Inc.
Tennessee Corp.

PHOSPHORIC ACID

Agrico Chemical Co.
Allied Chemical Corp.
Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
Columbia Nitrogen Corp.



Designed for Category II and III tractors of 90 hp and up, this new leader of the Servis RHINO family puts more than 1400 pounds of mass into every ditching, grading and backfilling job. Optional hydraulics control (at a touch) the patented main frame rotation and blade tilt. The RHINO 1400 has an eight-foot moldboard, and support stand for hitching. Adaptable for quick-coupler. Ask your Servis dealer for a demonstration of the new RHINO 1400—or any of the other famous Servis blades.

SUPER RHINO BLADE

EXTRA HEAVY DUTY BLADE comes with thirty-six easy adjustments for angle, offset, tilt and pitch . . . without using a wrench! Four basic positions: standard, angled, reverse and extended. Takes on the toughest jobs with ease. Designed for wheel type tractors with 75 hp to 100 hp drawbar ratings, with either 3-point lift or 2-point fast hitch. Available in 7′ and 8′ moldboard lengths. Blade offsets 30″ right or left. Fits tractor Categories I and II.

BIG RHINO BLADE

HEAVY DUTY BLADE finds dozens of jobs to do. Whether it's cutting ditches or filling them in . . . smoothing, leveling or grading . . . this blade will be one of your handiest tools. For wheel type 3-point lift tractors with up to 75 hp drawbar ratings. Thirty-four complete adjustments for blade pitch, angle and tilt. Available with standard 7′ or optional 8′ moldboard. Blade offsets 30″ right or left. Fits tractor Categories I and II.

LITTLE RHINO BLADE

GENERAL DUTY BLADE is smaller — but plenty tough — and ideal for leveling and dirt moving, digging and covering ditches, as well as for roadway work and windrowing. Moldboard extensions are available for converting this versatile six-footer into a rugged 7′ blade. An optional 8′ blade is also available. For wheel type 3-point lift tractors with up to 55 hp drawbar ratings. Thirty complete adjustments for blade pitch, angle and tilt. Blade offsets 23″ right or left. For Category I only.

LONE STAR BLADE

LIGHT UTILITY BLADE is priced for popular demand. Designed for strength and durability, the Lone Star has 10 adjustments for angle of blade, 3 reverse blade positions and tilt adjustment. For wheel type 3-point lift tractors with up to 40 hp drawbar ratings. Blade offsets 12″ right or left. Standard width is 6′. Also available in a special 8′ wide model. All-steel welded construction. For Category I tractors.

SERVIS EQUIPMENT COMPANY WT12
Post Office Box 1590 Dallas, Texas 75221

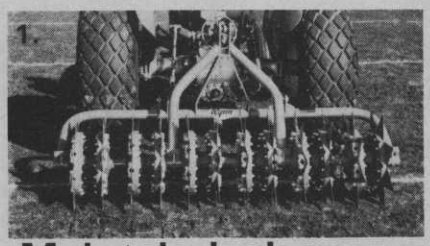
Please send information on: ☐ RHINO 1400, ☐ SUPER RHINO, ☐ BIG RHINO, ☐ LITTLE RHINO, ☐ LONE STAR, ☐ NEAREST SERVIS DEALER.

Name_____

Address_____

City_____ State_____ Zip_____

Type of tractor owned?_____ ☐ Student?



Maintain lush grass

and healthy turf

with Ryan equipment

Ryan turf-care machines are used the world over on golf courses, parks, playgrounds, plant sites, schools, colleges and home lawns. If you care for an acre of turf, or more, these three Ryan machines will help make your job easier:

1. Ryan Tracaire — this tractor-drawn aerator is designed to *core, slice* and *renovate* large, level areas . . . enables you to aerate all season. It opens up compacted soil. Allows air, water and fertilizer to penetrate to root zone for healthy, green turf.

2. Ryan Spreadrite—after aerating, it's time to top dress and fertilize. Self-propelled Spreadrite does either fast and well. It spreads any pulverized or screened materials, including sand and salt.

3. Ryan Jr Sod Cutter—if troubled areas need re-sodding, this sod cutter will do the job best for you. Three models of JR Sod Cutters are available for small to large "transplant operations".

Attachment blades are available for all models for trenching, edging, filling, pipe laying and subsoil aerification.

Write for FREE Ryan Catalog.

Ryan®

RYAN EQUIPMENT COMPANY

2055 White Bear Avenue
St. Paul, Minnesota 55109
Telephone 612-777-7461

SUBSIDIARY OF OUTBOARD MARINE CORP.

W. R. Grace & Co.
Green Lawn Laboratories, Inc.
International Minerals & Chem. Corp.
Phillips Petroleum Co.
Stauffer Chemical Co.
Tennessee Corp.
U.S. Industrial Chemicals Co.

pH CONTROLLERS

ALUMINUM SULFATE

International Minerals & Chem. Corp.
Tennessee Corp.
Andrew Wilson, Inc.

AMMONIUM POLYSULFIDE

Allied Chemical Corp.

AMTHIO

Allied Chemical Corp.

CALCITE, BURNED

Engelhard Minerals & Chemicals Co.

CALCITE, HYDRATED

Engelhard Minerals & Chemicals Co.

CALCIUM CARBONATE

Diamond Alkali Co.
Engelhard Minerals & Chemicals Co.
Green Lawn Laboratories, Inc.
Pittsburgh Plate Glass Co.

DOLOMITE

Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
Summers Fertilizers, Inc.

GYPSUM (CALCIUM SULFATE)

Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
Summers Fertilizers, Inc.

LIME, CONCENTRATE

Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
Engelhard Minerals & Chemicals Co.

LIMESTONE

Engelhard Minerals & Chemicals Co.
Summers Fertilizers, Inc.
U.S.S. Agri-Chemicals Div.

LIQUID FISH

Best Fertilizers Co.
Chevron Chemical Co., Ortho Div.

SULFUR

Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
Southern Mill Creek Products Co., Inc.
Wilbur-Ellis Co.

SOIL CONDITIONERS

BARK

Best Fertilizers Co.
Greenlife Products Co., Inc.
Weyerhaeuser Co.

BIO-CHEMICAL

American Bio-Turf

CALCINED CLAY

Eagle-Picher Industries, Inc.
Engelhard Minerals & Chemicals Co.
Floridin Co.
Oil-Dri Corp. of America
Southern Mill Creek Products Co., Inc.
Waverly Petroleum Products Co.
Wyandotte Chemicals Corp.

CANE

Fertilla Co.

CELATOM

Eagle-Picher Industries, Inc.

CORN COBS

Borden Chem., Smith-Douglass Div.
Green Lawn Laboratories, Inc.

DIATOMITE

Eagle-Picher Industries, Inc.
JohnsManville Corp.

LOAMITE

Loamite Corp.

PEAT-HUMUS

Premier Peat Moss Corp.
Western Peat Co.

PEAT MOSS

Best Fertilizers Co.
Premier Peat Moss Corp.

PENETRATE

C. B. Dolge Co.

PERLITE

Zonolite Div., W. R. Grace & Co.

VERMICULITE

American Vermiculite Corp.
Borden Chem., Smith-Douglass Div.
Zonolite Div., W. R. Grace & Co.

WOOD CHIPS

J. T. Dimmick Forest Co.
Fitchburg Engineering Corp.

MULCHES

CALCINED ABSORBENT CLAY

(See Soil Conditioners)

EROSION CONTROL MULCHES

American Excelsior Corp.
Conwed Corporation
J. T. Dimmick Forest Co.
Engelhard Minerals & Chemicals Co.
Grass Growers, Inc.
The Larutan Corp.
Reinco, Inc.
Weyerhaeuser Co.

EROSION CONTROL PLANTS

Plants For You

LANDSCAPE MULCHES

American Excelsior Corp.
Best Fertilizers Co.
Conwed Corporation
J. T. Dimmick Forest Co.
Fitchburg Engineering Corp.
Premier Peat Moss Corp.
Weyerhaeuser Co.

SEEDING MULCHES

American Excelsior Corp.
Conwed Corporation
International Paper Co.
Troy Blanket Mills

PERLITE

(See Soil Conditioners)

VERMICULITE

(See Soil Conditioners)

MISCELLANEOUS COMPOUNDS

ANTICAKING CONDITIONERS

Armour Industrial Chemicals Co.
Eagle-Picher Industries, Inc.
Engelhard Minerals & Chemicals Co.
The Larutan Corp.
Pittsburgh Plate Glass Co.
Waverly Petroleum Products Co.
Zonolite Div., W. R. Grace & Co.

ANTIDESICCANT SPRAYS

Aquatrols Corp. of America
W. A. Cleary Corp.
The J. J. Dill Co.
Nursery Specialty Products, Inc.
Andrew Wilson, Inc.

ANTI-TRANSPIRENT

Aquatrols Corp. of America

CHEMICAL TRIMMER

Chapman Chemical Co.

CHRISTMAS TREE PAINT DEFOLIANT (Non-Injurious)

C & R Products Development, Inc.

REPELLENTS

Samuel Cabot, Inc.
Sudbury Laboratory, Inc.

SEED, GRASS, COVERS & PLANT MATERIALS

Asgrow Seed Co.
Cal-Turf
Chanderlin Seed Co.
Cole Nursery Co.
Elanco Co.
Ferry Morse Seed Co.
Green Lawn Laboratories, Inc.
Jacklin Seed Co.
Maple Leaf Mills, Ltd.
McGovern Sod Farms
Merion Bluegrass Assoc.
Mock Seed Co.
Nunes Turfgrass Nurseries
Northrup, King & Co.
Oregon Chewings Fescue & Creeping Red Fescue Comm.
Oregon Highland Bentgrass Comm.
Oregon Fine Leaf Fescue Commission
Oregon Orchardgrass Seed Producers Comm.
Pennstar Kentucky Bluegrass
O. M. Scott & Sons Co.
South Dakota Kentucky Bluegrass Assn.
Stanford Seed Co.
Vaughan's Seed Co.
Warren's Turf Nursery
Whitney Seed Co.

STUMP REMOVAL COMPOUNDS

Bartlett Manufacturing Co.
Seymour Smith & Son

TREE WOUND PAINT

Asplundh Tree Expert Co.
John Bacon Corp.
Bartlett Manufacturing Co.
Borden Chem., Smith-Douglass Div.
Boyle-Midway Div.
Hydroponic Chemical Co., Inc.
Samuel Cabot, Inc.
B. G. Pratt Co.
Seymour Smith & Son, Inc.
Andrew Wilson, Inc.

TREE KILLERS

The Ansul Co. (Silvisar 510, 550)
Chipman Div., Rhodia Inc.
The J. J. Dill Co.
The Dow Chemical Co.

Introducing a New Era in turf maintenance...

Myers new TurfLine Sprayers

Myers TurfLine

This is the TL10ETMG, headliner of the new Myers TurfLine Sprayers. It's designed specifically for eliminating weeds, fungus and insects. It also reduces labor, saves time and lets you get on with other work. If turf, shrubs and trees are your responsibility, it'll pay you to look at this one. It includes features like these:

- Hi-flotation tires for minimum ground compaction. Distributes weight evenly for a smooth ride over all kinds of terrain.
- Adjustable fast hitch makes it usable with tractors and carts.
- Molded fiberglass tank (100 gallon capacity) has prop-type agitator and built-in sight gauge.
- Plunger type spray pump (10 GPM at 300 PSI) handles liquids as well as wettable powders.
- Boom covers 15-foot spray swath, uses nylon, drip-proof diaphragm check nozzles, folds and stores on built-in arresting hooks.
- Has convenient hose connections for high pressure spray gun work.

Thoroughly field proven, this unit has already shown people in all parts of the country how to handle their grounds maintenance jobs efficiently and economically. Shouldn't you look into this one now? See your Myers TurfLine Dealer or write today for our new catalog.

After 100 Years... More Buyers Still Buy Myers

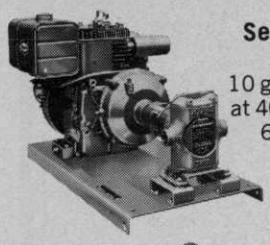
THE F. E. MYERS & BRO. CO.
400 ORANGE STREET • ASHLAND, OHIO 44805
A DIVISION OF McNEIL CORPORATION

1870 1970 — After 100 Years More Buyers Still Buy Myers — Myers

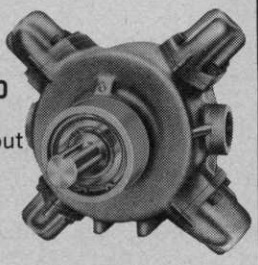
Hypro sprayer pumps

Choose from a wide range of pump designs and materials to suit your requirements: cast-iron, Ni-Resist and bronze pump housings... even nickel plating on piston pumps.

PISTON PUMPS



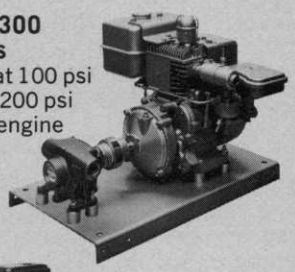
Series 5200 Big Twin
10 gpm output at 400 psi with 6 hp engine



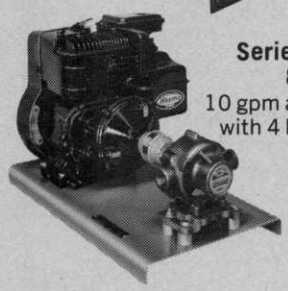
Series 5400 4-Cylinder
25 gpm output at 600 psi

ROLLER PUMPS

Choice of rubber or nylon rollers



Series 6300 6-Rollers
6.9 gpm at 100 psi
6 gpm at 200 psi
4 hp gas engine



Series 7560C 8-Rollers
10 gpm at 200 psi with 4 hp engine

Write for complete pump catalog or request pump recommendation for your need.

Hypro® / ISi®
A division of Lear Siegler, Inc.
347 Fifth Avenue NW, St. Paul, Minnesota 55112

Fence Painter Corp.
Green Lawn Laboratories, Inc.

TURF COLORING COMPOUNDS

W. A. Cleary Corp.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
The Gregg Co.
O. F. Linck Div., Walco-Linck Corp.
Mallinckrodt Chemical Works
Verde Lawn, Inc.

CARRIERS

CELATOM
Eagle-Picher Industries, Inc.

DUSTS, NATURAL

Eagle-Picher Industries, Inc.
Engelhard Minerals & Chemicals Co.
Floridin Co.
Green Lawn Laboratories, Inc.
Pittsburgh Plate Glass Co.

GRANULES, NATURAL

American Talc Co.
American Vermiculite Corp.
Englehard Minerals & Chemicals Co.
Floridin Co.
Waverly Petroleum Products Co.

LIQUID (SOLVENTS)

American Oil Co.
Green Lawn Laboratories, Inc.
Gulf Oil Corp.
Humble Oil & Refining Co.
Signal Oil & Gas Co.
Tenneco Oil Co.
Vulcan Materials Co.

VERMICULITE

(See Soil Conditioners)

DILUENTS

CALCIUM CARBONATE

Engelhard Minerals & Chemicals Co.

DIATOMACEOUS EARTH

Eagle-Picher Industries, Inc.
Johns-Manville Corp.

FULLERS EARTH

Engelhard Minerals & Chemicals Co.
Floridin Co.
Waverly Petroleum Products Co.

GRANULES, GENERAL

Engelhard Minerals & Chemicals Co.
Floridin Co.
Green Lawn Laboratories, Inc.

KAOLINS (CLAY)

Engelhard Minerals & Chemicals Co.

TALC

Amercian Talc Co.
Bonide Chemical Co., Inc.
Engelhard Minerals & Chemicals Co.

VERMICULITE

(See Soil Conditioners)

TRACE ELEMENTS

BORAX

American Potash & Chemical Corp.
Borden Chem., Smith-Douglass Div.
Green Lawn Laboratories, Inc.
Lawnhouse Products, Inc.
U.S. Borax & Chemical Corp.

BORO-SPRAY

American Potash & Chemical Corp.

COPPER CHELATE

Borden Chem., Smith-Douglass Div.
The J. J. Dill Co.
Geigy Agricultural Chemicals
Green Lawn Laboratories, Inc.
Lawnhouse Products, Inc.
Niagara Chemical Div., FMC Corp.

COPPER SULFATE

Borden Chem., Smith-Douglass Div.

IRON CHELATE

Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
C.L.M. National
Creative Sales, Inc.
The J. J. Dill Co.
Geigy Agricultural Chemicals
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Lawnhouse Products, Inc.
Tennessee Corp.
Vineland Laboratories, Inc.

IRON, MICRONIZED

The J. J. Dill Co.
Green Lawn Laboratories, Inc.

IRON SULFATE

Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
The J. J. Dill Co.
Eagle-Picher Industries, Inc.
Green Lawn Laboratories, Inc.
Mallinckrodt Chemical Works
Phillips Petroleum Co.
Tennessee Corp.

MAGNESIUM CARBONATE

Borden Chem., Smith-Douglass Div.
Lawnhouse Products, Inc.

MAGNESIUM-SULFATE

The J. J. Dill Co.
Lawnhouse Products, Inc.

MANGANESE CHELATE

Borden Chem., Smith-Douglass Div.
The J. J. Dill Co.
Geigy Agricultural Chemicals
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Phelps Dodge Refining Corp.
Robeco Chemicals, Inc.
Tennessee Corp.
Vineland Laboratories, Inc.

GRANULAR ORGANIC IRON COMPLEX

Eagle-Picher Industries, Inc.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.

MANGANESE SULFATE

The J. J. Dill Co.
Eagle-Picher Industries, Inc.
Eastman Chemical Products, Inc.
Green Lawn Laboratories, Inc.
Lawnhouse Products, Inc.
Tennessee Corp.

MANGANOUS OXIDE

Green Lawn Laboratories, Inc.
Tennessee Corp.

MOLYBDENUM

Borden Chem., Smith-Douglass Div.
Green Lawn Laboratories, Inc.
Lawnhouse Products, Inc.

MULTI-KEMIN

Niagara Chemical Div., FMC Corp.

SOLUBOR

U.S. Borax & Chemical Corp.

ZINC CHELATE

Best Fertilizers Co.
Borden Chem., Smith-Douglass Div.
C.L.M. National
The J. J. Dill Co.
Geigy Agricultural Chemicals
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Lawnhouse Products, Inc.

ZINC SULFATE

Allied Chemical Corp.
The J. J. Dill Co.
Eagle-Picher Industries, Inc.
Green Lawn Laboratories, Inc.
Phillips Petroleum Co.
The Sherwin-Williams Co.
Tennessee Corp.

COMBINATION OF TRACE ELEMENTS

Green Lawn Laboratories, Inc.

SURFACE ACTIVE AGENTS

AD-KIL

R. H. Bogle Co.

DETERGENTS, GENERAL

Armour Industrial Chemical Co.
Atlas Chemical Industries, Inc.
Cloro-Spray Corp.
C. B. Dolge Co.
Emery Industries, Inc.
General Aniline & Film Corp.
Retzloff Chemical Co.
Rohm and Haas Co.
Stepan Chemical Co.
Thompson-Hayward Chemical Co.

EMULSIFIERS

Aquatrols Corp. of America
Armour Industrial Chemical Co.
Atlas Chemical Industries, Inc.
Cloro-Spray Corp.
Collidial Products Corp.
The J. J. Dill Co.
Emery Industries, Inc.
General Aniline & Film Corp.
Great Lakes Chemical Div.
Retzloff Chemical Co.
Rohm and Haas Co.
Stepan Chemical Co.
Stull Chemical Co.
Thompson-Hayward Chemical Co.

ADJUVANTS

Collidial Products Corp.
K-D Manufacturing Co.
Stull Chemical Co.
Rhodes Chemicals
Wilsco, Inc.

PLYAC

Allied Chemical Corp.

SPREADER-STICKERS

Allied Chemical Corp.
Aquatrols Corp. of America
Atlas Chemical Industries, Inc.
Chipman Div., Rhodia Inc.
W. A. Cleary Corp.
Colloidal Products Corp.
The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
Emery Industries, Inc.
General Aniline & Film Corp.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
B. G. Pratt Co.
Retzloff Chemical Co.
Rohm and Haas Co.
Southern Mill Creek Products Co., Inc.
Stepan Chemical Co.
Stull Chemical Co.

New from DITCH WITCH
THE R65

Greater power... new features for service and main-line work

THE DITCH WITCH R65 . . . A powerful 65 H.P. air cooled engine plus advanced, proven DITCH WITCH design features make the new R65 trencher safe and easy to operate, while handling the most challenging trenching jobs. Some of the new outstanding features of the new R65 are: dependable disc-brake system . . . heavy duty power steering and suspension system . . . front or rear mounted backhoe capability . . . one piece removable hood for ease of maintenance . . . heavy-duty hydraulic power system and convenient quick connect hydraulic coupler manifold. All of these plus safe rigid frame construction, four-wheel drive, convenient hydraulic assist to all control systems plus four mechanically-selective digging chain speeds, with reverse; operated independently of the variable controlled hydraulic trenching travel speed. Trench to 7 feet deep and to 24" wide. Attachments available are vibratory plow, backhoe, and horizontal boring unit. Let your DITCH WITCH dealer bring an R65 to your job site!

DITCH WITCH
The Professionals
A Division of
Charles Machine Works, Inc.
100 Ash Street, Perry, Oklahoma 73077

A Full Line of Professional Trenching Equipment From 7-HP to 65-HP

For More Details Circle (104) on Reply Card

Thompson-Hayward Chemical Co.
Thuron Industries, Inc.
Wilbur-Ellis Co.
Andrew Wilson, Inc.

STABILIZERS

Armour Industrial Chemical Co.
Atlas Chemical Industries, Inc.
Colloidal Products Corp.
Emery Industries, Inc.
General Aniline & Film Corp.
Rohm and Haas Co.

WETTING AGENTS

American Cyanamid Co.
Aquatrols Corp. of America
Armour Industrial Chemical Co.
Atlas Chemical Industries, Inc.
Chipman Div., Rhodia Inc.
W. A. Cleary Corp.
Cloro-Spray Corp.
Colloidal Products Corp.
The J. J. Dill Co.
Emery Industries, Inc.
General Aniline & Film Corp.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
The Larutan Corp.
Retzloff Chemical Co.
Roberts Chemicals, Inc.
Rohm and Haas Co.
Southern Mill Creek Products Co., Inc.
Stepan Chemical Co.
Thompson-Hayward Chemical Co.
Thuron Industries, Inc.
Vineland Chemical Co.
"Water In," Inc.
Weyerhaeuser Co.

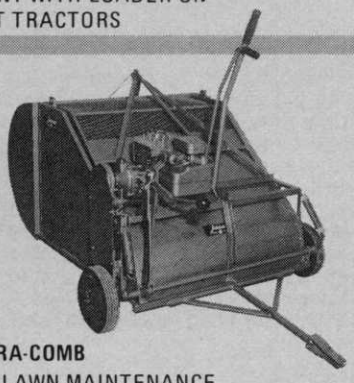
FEMA

JOHNSON

"Work Horse"®

PRODUCTS GET THE JOB DONE!

LOADER & TERRA-BLADE
MOWER OR TERRA-BLADE
MOUNT WITH LOADER ON
MOST TRACTORS



TERRA-COMB
FOR LAWN MAINTENANCE
AND GROUND KEEPING
THACHING OR POWER RAKING

JOHNSON HYDRAULIC EQUIPMENT CO.
215 WEST 78TH STREET • MINNEAPOLIS, MINNESOTA 55420

SPRAY THICKENING AGENTS

ATTAGELS

Englehard Minerals & Chemicals Co.

DACAGIN

Diamond Shamrock Chemical Co.
Great Lakes Chemical Div.

INVERT EMULSION ADJUVANTS

(See Emulsifiers)

NORBAK

The Dow Chemical Co.

VISTIK

Hercules Incorporated

GROWTH REGULATORS

MAINTAIN CF

U.S. Borax & Chemical Corp.

TRE-HOLD

Amchem Products, Inc.

GROWTH RETARDANTS

SLO-GRO

Uniroyal Chemical Div.

CYCOCEL

American Cyanamid Co.

GIBREL

Metasol Products, Merck & Co.

MALEIC HYDRAZIDE

Aceto Chemical Co. Inc.
The Ansul Co.
W. R. Grace & Co.
Naugatuck Chemical Div.

PHOSFON

Mobil Chemical Co.

RETARD

The Ansul Co.

STREPTOMYCIN

Metasol Products, Merck & Co.

SOIL FUMIGANTS & NEMATICIDES

BROMIDE

Great Lakes Chemical Div.
Dow Chemical Co.

BROMODINE

C & R Products Development, Inc.

BROM-O-GAS

Great Lakes Chemical Div.

BROZONE

Dow Chemical Co.

CHLOROPICRIN

The J. J. Dill Co.
The Dow Chemical Co.
Great Lakes Chemical Div.
Michigan Chemical Co.
Southern Mill Creek Products Co., Inc.

DASANIT

Chemagro Div., Baychem Corp.
Southern Mill Creek Products Co., Inc.

D-D (VIDDEN-D)

The Dow Chemical Co.
Great Lakes Chemical Div.
Shell Chemical Co., Ag. Chem. Div.
Stauffer Chemical Co.

DICHLOROPROPENE COMPOUNDS

The Dow Chemical Co.

DOWFUME

The J. J. Dill Co.
The Dow Chemical Co.
Southern Mill Creek Products Co., Inc.
U.S.S. Agri-Chemicals Div.

ETHYLENE DIBROMIDE

The J. J. Dill Co.
The Dow Chemical Co.
Ferguson Fumigants, Inc.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
Michigan Chemical Co.
Southern Mill Creek Products Co., Inc.
Velsicol Chem. Corp.

FUMAZONE (NEMAGON)

The J. J. Dill Co.
The Dow Chemical Co.
Southern Mill Creek Products Co., Inc.

METHYL BROMIDE

The J. J. Dill Co.
The Dow Chemical Co.
Ferguson Fumigants, Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
Michigan Chemical Co.
Southern Mill Creek Products Co., Inc.
U.S.S. Agri-Chemicals Div.
Velsicol Chemical Corp.
Vulcan Materials Co.

MYLONE

Union Carbide Corp.

NEMAGON

Shell Chemical Co., Ag Chem. Div.
U.S.S. Agri-Chemicals Div.

SOILBROM—85

Great Lakes Chemical Div.

SAROLEX

Armour Agricultural Chemical Co.
Geigy Agricultural Chemicals
Southern Mill Creek Products Co., Inc.
U.S.S. Agri-Chemicals Div.

TELONE

The Dow Chemical Co.

TERR-O-GAS

Great Lakes Chemical Div.

VAPAM (VPM)

The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
W. R. Grace & Co.
Stauffer Chemical Co.
U.S.S. Agri-Chemicals Div.

VIDDEN D

Dow Chemical Co.

VORLEX

W. R. Grace & Co.
Great Lakes Chemical Div.
Nor-Am Agric. Products, Inc.

VPM

E. I. duPont de Nemours & Co., Inc.

MITICIDES

ACARABEN

Geigy Agricultural Chemicals

ARAMITE

Aceto Chemical Co., Inc.
The J. J. Dill Co.
Naugatuck Chemical Div.
Niagara Chemical Div., FMC Corp.

BIDRIN

W. R. Grace & Co.
B. G. Pratt Co.
Shell Chemical Co.,
Ag. Chem. Div.

BINAPACRYL

Niagara Chemical Div., FMC Corp.

CHLOROBENZILATE

Aceto Chemical Co., Inc.
The J. J. Dill Co.
Hub States Chemical & Equip. Corp.

CYGON

Aceto Chemical Co., Inc.
The J. J. Dill Co.
W. R. Grace & Co.
Hub States Chemical & Equip. Corp.
B. G. Pratt Co.
Southern Mill Creek Products Co., Inc.
Thompson-Hayward Chemical Co.

DELNAV

Great Lakes Chemical Div.
Hercules Incorporated
Thompson-Hayward Chemical Co.

DIBROM

Chevron Chemical Co., Ortho Div.
Chipman Chemical Co.
The J. J. Dill Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.

DIMITE

The Sherwin-Williams Co.

ETHION

The J. J. Dill Co.
Niagara Chemical Div., FMC Corp.
B. G. Pratt Co.
U.S.S. Agri-Chemicals Div.

GENITE

Allied Chemical Corp.
W. R. Grace & Co.

KARATHANE

(See Fungicides)

KELTHANE

The J. J. Dill Co.
W. R. Grace & Co.
Hub States Chemical & Equip. Corp.
Rohm and Haas Co.

MORESTAN

Chemagro Div., Baychem Corp.
The J. J. Dill Co.

MOROCIDE (BINAPACRYL)

W. R. Grace & Co.
Niagara Chemical Div., FMC Corp.

PENTAC

Great Lakes Chemical Div.
Hooker Chemical Corp.

SYSTOX

Chemagro Corp.
The J. J. Dill Co.
Niagara Chemical Div., FMC Corp.
B. G. Pratt Co.
Southern Mill Creek Products Co., Inc.

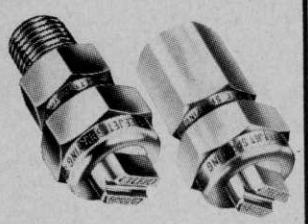
TEDION

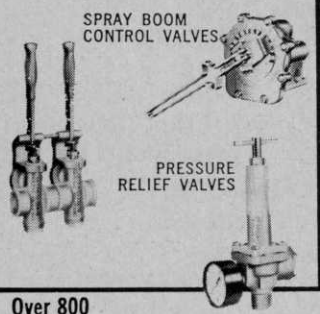
The J. J. Dill Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Niagara Chemical Div., FMC Corp.

SPRAYING SYSTEMS CO.

TeeJet®

SPRAY NOZZLES AND ACCESSORIES





Over 800
INTERCHANGEABLE SPRAY TIP TYPES AND CAPACITIES...
tapered edge, even and wide angle flat spray . . . hollow and full cone . . . disc type hollow and full cone . . . and flow regulators. The most complete line for spraying herbicides, insecticides, fungicides and liquid fertilizers. All materials . . . brass, aluminum, stainless steel and Nylon. Dependable delivery. For complete information on spray nozzles, spray guns and accessories write for Catalog 35.

SPRAYING SYSTEMS CO.
3241 Randolph Street / Bellwood, Illinois 60104

ADVANCED RESEARCH, ENGINEERING, PRODUCTION FOR BETTER SPRAY NOZZLE DESIGN AND PERFORMANCE

For More Details Circle (121) on Reply Card

WHEN YOUR SPECS CALL FOR SOD, BE SURE YOU CALL FOR SOD FROM

WARREN'S A-34
WARREN'S A-20
WARREN'S A-10
MERION
MIXED GRASS
BENTGRASS
BERMUDA
MARK-31

PRINCETON TURF FARMS, INC.

HIGHTSTOWN, NEW JERSEY and CENTREVILLE, MD.

Dial (609) 448-9300 (301) 827-8454

For More Details Circle (128) on Reply Card

Thompson-Hayward Chemical Co.

TOXAPHENE

Chipman Chemical Co., Inc.
W. R. Grace & Co.
Hercules, Inc.
Niagara Chemical Div., FMC Corp.
Thompson-Hayward Chemical Co.

TRITHION

The J. J. Dill Co.
W. R. Grace & Co.
Stauffer Chemical Co.

INSECTICIDES

ABATE

American Cyanamid Co.
The J. J. Dill Co.
W. R. Grace & Co.
Hub States Chemical & Equip. Corp.
Michlin Chemical Corp.
Southern Mill Creek Products Co., Inc.

AKTON

Hub States Chemical & Equip. Corp.
Shell Chemical Co., Agr. Chem. Div.
Southern Mill Creek Products Co., Inc.

ALDRIN

Chipman Div., Rhodia, Inc.
The J. J. Dill Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
Shell Chemical Co., Ag. Chem. Div.
Southern Mill Creek Products Co., Inc.
Summers Fertilizers, Inc.
Thompson-Hayward Chemical Co.

ARSENICAL COMPOUNDS

Allied Chemical Corp.
Chipman Div., Rhodia, Inc.
Green Lawn Laboratories, Inc.
The J. J. Dill Co.
Niagara Chemical Div., FMC Corp.
Pennwalt Chemicals Corp.
The Sherwin-Williams Co.
Southern Mill Creek Products Co., Inc.

ASPON

Faesey & Besthoff, Inc.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.

AZINPHOSMETHYL (GUTHION*)

The J. J. Dill Co.
Niagara Chemical Div., FMC Corp.
Southern Mill Creek Products Co., Inc.

BACILLUS THURINGIENSIS

Bioferm Corp.
International Minerals & Chemical Corp.
Pennsalt Chemical Corp.

BAYGON (BAYER, 39007)

Chemagro Div., Baychem Corp.
The J. J. Dill Co.
W. R. Grace & Co.
Hub States Chemical & Equip. Corp.
Southern Mill Creek Products Co., Inc.
Thompson-Hayward Chemical Co.
West Chemical Products, Inc.

BAYTEX

Chemagro Div., Baychem Corp.
The J. J. Dill Co.
W. R. Grace & Co.
Southern Mill Creek Products Co., Inc.

BETANAPHTHOL

The Sherwin-Williams Co.
Allied Chemical Corp.
Chipman Div., Rhodia, Inc.
Diamond Shamrock Co.
The J. J. Dill Co.

BHC

W. R. Grace & Co.
Hooker Chemical Corp.
Hub States Chemical & Equip. Corp.
Lethelin Products Co., Inc.
Niagara Chemical Div., FMC Corp.
Southern Mill Creek Products Co., Inc.

BIDRIN

(See Miticides)

CHLORDANE

(See Preemergence Herbicides)

COPPER ARSENATE, BASIC

The J. J. Dill Co.
The Sherwin-Williams Co.

CRYOLITE

Aceto Chemical Co., Inc.
Pennsalt Chemicals Corp.

CYGON (DIMETHOATE)

Aceto Chemical Co., Inc.
American Cyanamid Co.
Crown Chemicals
The J. J. Dill Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
B. G. Pratt Co.
Southern Mill Creek Products Co., Inc.
Thompson-Hayward Chemical Co.

DDD (TDE)

Allied Chemical Corp.
W. R. Grace & Co.
Niagara Chemical Div., FMC Corp.
Rohm and Haas Co.
Southern Mill Creek Products Co., Inc.

DDT

Allied Chemical Corp.
Bonide Chemical Co., Inc.
Chevron Chemical Co., Ortho Div.
Chipman Div., Rhodia Inc.
Diamond Shamrock Chemical Co.
The J. J. Dill Co.
Faesy & Besthoff, Inc.
Gabriel Chemicals, Ltd.
W. R. Grace & Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hub States Chemical & Equip. Corp.
Montrose Chemical Co.
S. B. Penick & Co.
Pennwalt Chemicals Corp.
B. G. Pratt Co.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.

DDVP (VAPONA)

The J. J. Dill Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
S. B. Penick & Co.
B. G. Pratt Co.
Shell Chemical Co., Ag. Chem. Div.
Southern Mill Creek Products Co., Inc.
Thompson-Hayward Chemical Co.
West Chemical Products, Inc.

DEF

Chemagro Corp.

DELNAV

(See Miticides)

DIAZINON

Armour Agricultural Chemical Co.
The J. J. Dill Co.
Geigy Agricultural Chemicals
W. R. Grace & Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
S. B. Penick & Co.
B. G. Pratt Co.
Southern Mill Creek Products Co., Inc.
U.S.S. Agri-Chemicals Div.

DIBROM

(See Miticides)

DIELDRIN

Armour Agricultural Chemical Co.
Borden Chem., Smith-Douglass Div.
Chipman Div., Rhodia, Inc.
The J. J. Dill Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hub States Chemical & Equip. Corp.
S. B. Penick & Co.
Pennwalt Chemicals Corp.
B. G. Pratt Co.
Shell Chemical Co., Ag. Chem. Div.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.
U.S.S. Agri-Chemicals Div.

DIMETHRIN

McLaughlin Gormley King Co.

DIPTEREX

The J. J. Dill Co.
Hub States Chemical & Equip. Corp.
Southern Mill Creek Products Co., Inc.

DI-SYSTON

Borden Chem., Smith-Douglass Div.
Chemagro Div., BayChem Corp.
Ross Daniels, Inc.
The J. J. Dill Co.
The Dow Chemical Co.
W. R. Grace & Co.
Southern Mill Creek Products Co., Inc.

DNOC

Niagara Chemical Div., FMC Corp.

DRINOX

Morton Chemical Co.

DURSBAN

Dow Chemical Co.
Southern Mill Creek Products Co., Inc.

DYLOX

Chemagro Div., Baychem Corp.
The J. J. Dill Co.
W. R. Grace & Co.
Southern Mill Creek Products Co., Inc.

ENDOSULFAN (THIODAN)

Niagara Chemical Div., FMC Corp.
Chipman Chemical Co., Inc.
The J. J. Dill Co.

ENDRIN

Chipman Div., Rhodia, Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.

Hub States Chemical & Equip. Corp.
Shell Chemical Co.,
Ag. Chem. Div.
Southern Mill Creek Products
Co., Inc.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.
Velsicol Chemical Corp.

ETHION

(See Miticides)

GARDONA

Shell Chemical Co., Agri. Chem. Div.

GUTHION

Chemagro Corp.
The J. J. Dill Co.
Niagara Chemical Div., FMC Corp.
Southern Mill Creek Products
Co., Inc.

HEPTACHLOR

Armour Agricultural Chemical Co.
Chipman Div., Rhodia, Inc.
The J. J. Dill Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
Pennwalt Chemicals Corp.
B. G. Pratt Co.
Southern Mill Creek Products
Co., Inc.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.
Velsicol Chemical Corp.

KORLAN

The J. J. Dill Co.
The Dow Chemical Co.
Hub States Chemical & Equip. Corp.
Southern Mill Creek Products
Co., Inc.

LEAD ARSENATE

(See Preemergence Herbicides)

LETHANE

The J. J. Dill Co.
Hub States Chemical & Equip. Corp.
Michlin Chemical Corp.
Rohm and Haas Co.
Southern Mill Creek Products
Co., Inc.

LIME SULFUR

Allied Chemical Corp.
The J. J. Dill Co.
Miller Chemical & Fertilizer Corp.

LINDANE

Aceto Chemical Co., Inc.
Boyle-Midway Div.
Chevron Chemical Co., Ortho Div.
Chipman Div., Rhodia, Inc.
The J. J. Dill Co.
C. B. Dolge Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hooker Chemical Corp.
Hub States Chemical & Equip. Corp.
Michlin Chemical Corp.
Niagara Chemical Div., FMC Corp.
S. B. Penick & Co.
Pennwalt Chemicals Corp.
B. G. Pratt Co.
Robeco Chemicals Inc.
Southern Mill Creek Products
Co., Inc.
Thompson-Hayward Chemical Co.
Vineland Laboratories, Inc.

MALATHION

Aceto Chemical Co. Inc.
American Cyanamid Co.
Armour Agricultural Chemical Co.
Borden Chem., Smith-Douglass Div.
Boyle-Midway Div.
Chipman Div., Rhodia, Inc.
Crown Chemicals
The J. J. Dill Co.
C. B. Dolge Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hub States Chemical & Equip. Corp.
Michlin Chemical Corp.
Niagara Chemical Div., FMC Corp.
S. B. Penick & Co.
Pennwalt Chemicals Corp.
B. G. Pratt Co.
Southern Mill Creek Products
Co., Inc.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.
U.S.S. Agri-Chemicals Div.
West Chemical Products, Inc.
Vineland Laboratories, Inc.

MATACIL

Chemagro Corp.

METALDEHYDE

Aceto Chemical Co., Inc.
Commercial Solvents Corp.
Great Lakes Chemical Div.
B. G. Pratt Co.
Southern Mill Creek Products
Co., Inc.

META-SYSTOX-R

Borden Chem., Smith-Douglass Div.
Chemagro Div., Baychem Corp.
C.L.M. National
The J. J. Dill Co.
W. R. Grace & Co.
B. G. Pratt Co.
Southern Mill Creek Products
Co., Inc.

METHOMYL (Lannate)

E. I. duPont de Nemours & Co., Inc.

METHOXYCHLOR

Allied Chemical Corp.
The Ansul Co.
Armour Agricultural Chemical Co.
Boyle-Midway Div.
The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
B. G. Pratt Co.
Southern Mill Creek Products
Co., Inc.
West Chemical Products Inc.

METHYL PARATHION

American Cyanamid Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Hercules Incorporated
Niagara Chemical Div., FMC Corp.
Pennwalt Chemicals Corp.
Stauffer Chemical Co.
Velsicol Chemical Corp.

MORESTAN

Chemagro Corp.

OILS, DORMANT

Borden Chem., Smith-Douglass Div.
Chevron Chemical Co., Ortho Div.
The J. J. Dill Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Niagara Chemical Div., FMC Corp.
B. G. Pratt Co.
Southern Mill Creek Products
Co., Inc.

OILS, SUMMER

The J. J. Dill Co.

PARATHION

American Cyanamid Co.
American Potash & Chemical Corp.
Chevron Chemical Co., Ortho Div.
Chipman Div., Rhodia, Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Monsanto Co.
Niagara Chemical Div., FMC Corp.
Pennwalt Chemicals Corp.
Stauffer Chemical Co.
Velsicol Chemical Corp.

PARIS GREEN

Chipman Div., Rhodia, Inc.
Southern Mill Creek Products
Co., Inc.

PENTACHLORAPHENOL

The J. J. Dill Co.
The Dow Chemical Co.
Hub States Chemical & Equip. Corp.
Michlin Chemical Corp.
Southern Mill Creek Products
Co., Inc.

PHENOTHIAZINE

Prentiss Drug & Chemical Co.
Vineland Laboratories, Inc.

PHORATE (THIMET)

American Cyanamid Co.
Niagara Chemical Div., FMC Corp.
Southern Mill Creek Products
Co., Inc.

PHOSDRIN

Chipman Div., Rhodia, Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.
Shell Chemical Co.,
Ag. Chem. Div.
Southern Mill Creek Products
Co., Inc.

PHOSPHAMIDON (DIMECRON)

Chevron Chemical Co., Ortho Div.
W. R. Grace & Co.
Great Lakes Chemical Div.

PYRETHRINS

The J. J. Dill Co.
C. B. Dolge Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
McLaughlin Gormley King Co.
Niagara Chemical Div., FMC Corp.
S. B. Penick & Co.
B. G. Pratt Co.
Prentiss Drug & Chemical Co.
Southern Mill Creek Products
Co., Inc.
West Chemical Products Inc.

PYRETHRUM-RYANIA

S. B. Penick & Co.

ROTENONE

The J. J. Dill Co.
W. R. Grace & Co.
Hub States Chemical & Equip. Corp.
Michlin Chemical Corp.
S. B. Penick & Co.
B. G. Pratt Co.
Southern Mill Creek Products
Co., Inc.

RYANIA

The J. J. Dill Co.
S. B. Penick & Co.

SEVIN (CARBARYL)

Armour Agricultural Chemical Co.
Borden Chem., Smith-Douglass Div.
The J. J. Dill Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
Lawnhouse Products, Inc.
Michlin Chemical Corp.
Niagara Chemical Div., FMC Corp.
B. G. Pratt Co.

O. M. Scott & Sons Co.
Stauffer Chemical Co.
Southern Mill Creek Products Co., Inc.
Thompson-Hayward Chemical Co.
U.S.S. Agri-Chemicals Div.
Union Carbide Corp.
Vineland Laboratories, Inc.

SINOX

Niagara Chemical Div., FMC Corp.

STROBANE

The J. J. Dill Co.
W. R. Grace & Co.
McLaughlin Gormley King Co.
Thompson-Hayward Chemical Co.

SYSTOX

(See Miticides)

TEPP

Chipman Div., Rhodia, Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.
Niagara Chemical Div., FMC Corp.

THANITE

The J. J. Dill Co.
Hercules Incorporated
Southern Mill Creek Products Co., Inc.

TOXAPHENE

Chipman Div., Rhodia, Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.
Hercules Incorporated
Niagara Chemical Div., FMC Corp.
Southern Mill Creek Products Co., Inc.
Thompson-Hayward Chemical Co.

TRICHLORFON (DYLOX, DIPTEREX)

Chemagro Corp.
The J. J. Dill Co.

THURICIDE

International Minerals and Chemicals

TRITHION

(See Miticides)

V-C 13

W. R. Grace & Co.
Mobil Chemical Co.
Pennwalt Chemicals Corp.
Southern Mill Creek Products Co., Inc.

ZECTRAN

The Dow Chemical Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Southern Mill Creek Products Co., Inc.

ZINOPHOS

W. R. Grace & Co.
Southern Mill Creek Products Co., Inc.

FUNGICIDES

ACTI-DIONE

The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Southern Mill Creek Products Co., Inc.
TUCO Products Co.
U.S.S. Agri-Chemicals Div.

AGROX

Chipman Chemical Co., Inc.

BENOMYL (BENLATE)

E. I. duPont de Nemours & Co., Inc.

BOTRAN

TUCO Products Co.

CADMINATE

Mallinckrodt Chemical Works

CADMIUM CARBONATE

The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Mallinckrodt Chemical Works

CADMIUM CHLORIDE

Armour Agricultural Chemical Co.
W. A. Cleary Corp.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Mallinckrodt Chemical Works
Metasol Products, Merck & Co.
U.S.S. Agri-Chemicals Div.
Vineland Chemical Co.

CADMIUM SEBACATE (KROMAD)

Armour Agricultural Chemical Co.
Mallinckrodt Chemical Works
Southern Mill Creek Products Co., Inc.

CADMIUM SUCCINATE (CADMINATE)

Armour Agricultural Chemical Co.
The J. J. Dill Co.
Mallinckrodt Chemical Works

CALO-CLOR

Mallinckrodt Chemical Works

CALOCURE

Mallinckrodt Chemical Works

CALO-GRAN

Mallinckrodt Chemical Works

CALOMEL

The J. J. Dill Co.
Mallinckrodt Chemical Works
Metasol Products, Merck & Co.

CAPTAN

Chevron Chemical Co., Ortho Div.
The J. J. Dill Co.
W. R. Grace & Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hub States Chemical & Equip. Corp.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.

CERESAN

E. I. duPont de Nemours & Co., Inc.
Great Lakes Chemical Div.

CHIPCOTE

Chipman Chemical Co., Inc.

CHLORANIL

Aceto Chemical Co. Inc.
W. R. Grace & Co.
Naugatuck Chemical Div.

COPPER SULFATE

(See Aquatic Herbicides)

COPPER SULFATE, TRI-BASIC

The J. J. Dill Co.
Mallinckrodt Chemical Works
Niagara Chemical Div., FMC Corp.
Phelps Dodge Refining Corp.
Southern Mill Creek Products Co., Inc.
Tennessee Corp.

COPPER ZINC CHROMATE

W. R. Grace & Co.
Miller Chemical & Fertilizer Corp.

CORROSIVE SUBLIMATE

The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Mallinckrodt Chemical Works

CYCLOHEXIMIDE

Green Lawn Laboratories, Inc.
Tuco Div., UpJohn Co.

CYPREX

American Cyanamid Co.
The J. J. Dill Co.
Niagara Chemical Div., FMC Corp.

DACONIL 2787

Armour Agricultural Chemical Co.
Diamond Shamrock Chemical Co.
The J. J. Dill Co.
Great Lakes Chemical Div.
Southern Mill Creek Products Co., Inc.

DEXON

Chemagro Div., Baychem Corp.
The J. J. Dill Co.

DICHLONE

(See Aquatic Herbicides)

DITHANE

Rohm and Haas Co.

DYRENE

Armour Agricultural Chemical Co.
Chemagro Div., Baychem Corp.
The J. J. Dill Co.
W. R. Grace & Co.
Southern Mill Creek Products Co., Inc.
U.S.S. Agri-Chemicals Div.

FERBAM

The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Niagara Chemical Div., FMC Corp.
Pennwalt Chemical Corp.
Shepard Chemical Industries, Inc.
Velsicol Chemical Corp.

FOLPET

Aceto Chemical Co., Inc.
Chevron Chemical Co., Ortho Div.
W. R. Grace & Co.
Green Lawn Laboratories, Inc.
Stauffer Chemical Co.

FORE

The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Rohm and Haas Co.
Southern Mill Creek Products Co., Inc.
U.S.S. Agri-Chemicals Div.

GLYODIN

W. R. Grace & Co.
Union Carbide Corp.

KARATHANE

The J. J. Dill Co.
W. R. Grace & Co.
Rohm and Haas Co.
Southern Mill Creek Products Co., Inc.

KROMA-CLOR

Mallinckrodt Chemical Works

KROMAD

Mallinckrodt Chemical Works

MANEB (MANZATE)

Aceto Chemical Co., Inc.
The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.

W. R. Grace & Co.
Great Lakes Chemical Div.
Niagara Chemical Div., FMC Corp.
Pennwalt Chemicals Corp.
B. G. Pratt Co.
Rohm and Haas Co.
Southern Mill Creek Products Co., Inc.

MEMMI

The J. J. Dill Co.
Southern Mill Creek Products Co., Inc.
Velsicol Chemical Corp.

MERCURY COMPOUNDS

Armour Agricultural Chemical Co.
Chipman Div., Rhodia, Inc.
W. A. Cleary Corp.
The J. J. Dill Co.
E. I. du Pont de Nemours & Co., Inc.
Green Lawn Laboratories, Inc.
Mallinckrodt Chemical Works
Metasol Products, Merck & Co.
Robeco Chemicals, Inc.
Shepard Chemical Industries, Inc.
Southern Mill Creek Products Co., Inc.
Summers Fertilizers, Inc.
Thompson-Hayward Chemical Co.
U.S.S. Agri-Chemicals Div.
Velsicol Chemical Co.

MOROCIDE

Niagara Chemical Div., FMC

MORSODREN

Nor-Am Agri. Products, Inc.

NABAM

E. I. duPont de Nemours & Co., Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.
Niagara Chemical Div., FMC Corp.
Rohm and Haas Co.

NO BUNT

Chipman Div., Rhodia, Inc.

PANOGEN

Armour Agricultural Chemical Co.
Great Lakes Chemical Div.
Nor-Am Agri. Products, Inc.

PENTACHLORONITROBENZENE

W. R. Grace & Co.
Olin Mathieson Chemical Corp.
Shepard Chemical Industries, Inc.
Tuco Div., UpJohn Co.
Velsicol Chemical Corp.

PHENMAD

Mallinckrodt Chemical Works

PHENYLMERCURIC ACETATE

Armour Agricultural Chemical Co.
Chemley Products Co.
Chipman Div., Rhodia Inc.
W. A. Cleary Corp.
The J. J. Dill Co.
Green Lawn Laboratories, Inc.
Mallinckrodt Chemical Works
Metasol Products, Merck & Co.
O. M. Scott & Sons Co.
Velsicol Chemical Corp.
Vineland Chemical Co.

PIPERALIN

Elanco Products Co.

PIPRON

Elanco Products Co.

POLYRAM

W. R. Grace & Co.
Niagara Chemical Div., FMC Corp.

SEMESAN

E. I. duPont de Nemours & Co., Inc.

SPRING-BAK

Mallinckrodt Chemical Works

SULFUR

Chevron Chemical Co., Ortho Div.
Green Lawn Laboratories, Inc.
W. R. Grace & Co.
Niagara Chemical Div., FMC Corp.
B. G. Pratt Co.
The Sherwin-Williams Co.
Southern Mill Creek Products Co., Inc.
Stauffer Chemical Co.

TERSAN OM

E. I. duPont de Nemours & Co., Inc.

THIMER

W. A. Cleary Corp.

THIRAM

Aceto Chemical Co., Inc.
Armour Agricultural Chemical Co.
W. A. Cleary Corp.
The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Lawnhouse Products, Inc.
Mallinckrodt Chemical Works
Metasol Products, Merck & Co.
Niagara Chemical Div., FMC Corp.
Pennwalt Chemicals Corp.
Robeco Chemicals, Inc.

THE NEW REINCO TM7-30 TRUCK MOUNTED MULCHER

Ideally suited for commercial or residential turf work. A 4 ton an hour mini-brute, the Reinco TM7-30 is a "lawn a minute" work horse—blowing mulch distances up to 60 feet. Unique direct drive eliminates power robbing belts, chains, gears, etc. Cuts labor expenses by 60%. Price? . . . It's Low!

TWO FOR THE PRICE OF ONE! !
This Pair Of Profit Producers Costs Less Than ONE Large "Brand X" Mulcher Or Seeder!

REINCO

P.O. Box 584
PLAINFIELD, NEW JERSEY 07061
(201) 755-0921

SEND For FREE Booklet
HYDROGRASSING AND MULCHING

HG-8 HYDROGRASSER

The HG-8 . . . a versatile 800 gallon medium range hydrograsser. Perfect for distances from 20-80 feet. Hydrodynamic jet agitation results in a continuous uniform solids dispersion and less down time for maintenance, seed, fertilizer and mulch in one operation. An 800 gallon batch in less than 15 minutes! The HG-8 will produce higher profits by reducing costs and increasing job range.

Roussel Corp.
O. M. Scott & Sons Co.
Southern Mill Creek Products Co., Inc.
Summers Fertilizers, Inc.
Tuco Div., UpJohn Co.
U.S.S. Agri-Chemicals Div.
Velsicol Chemical Corp.

THIRAMAD

Mallinckrodt Chemical Works

THIRAMAD-PLUS

Mallinckrodt Chemical Works

TUTANE

Elanco Products Co.

ULTRA-CLOR

Mallinckrodt Chemical Works

VELSICOL "2-1"

The J. J. Dill Co.
Velsicol Chemical Corp.

ZINEB

Aceto Chemical Co., Inc.
E. I. duPont de Nemours & Co., Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Niagara Chemical Div., FMC Corp.
Penwalt Chemicals Corp.
Rohm and Haas Co.
Southern Mill Creek Products Co., Inc.

ZIRAM

Aceto Chemical Co., Inc.
The J. J. Dill Co.
E. I. duPont de Nemours & Co., Inc.
W. R. Grace & Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Niagara Chemical Div., FMC Corp.
Pennwalt Chemicals Co.
Velsicol Chemical Corp.

2-AMINOBUTANE

Elanco Products Co.

CUTRINE®

Registered in 1970
for Lakes, Trout Ponds

•

Registered in 1971
for

POTABLE WATER RESERVOIRS!

FARM, FISH AND FIRE PONDS!

LAKES & FISH HATCHERIES!

That's Some Progress

That's Some Algaecide!

Circle our number for information

APPLIED BIOCHEMISTS, INC.

P.O. Box 25
Mequon, Wisconsin 53092

EQUIPMENT

AERATORS

DEFCO
John H. Graham & Co., Inc.
Gravely Corp.
Hahn Inc., — West Points Products Div.
Henderson Mfg. Co., Inc.
Howard Rotavator Co., Inc.
International Harvester Co.
Jacobsen Mfg. Co.
F. D. Kees Mfg. Co.
Lakes Supply Co., Inc.
Lindig Mfg. Corp.
Parker Sweeper Co.
Rogers Mfg. Co., Inc.
Royer Foundry & Machine Co.
Ryan Equipment Co.
O. M. Scott & Sons
Silver Creek Precision Corp.
Simplicity Mfg. Co., Inc.
Viking Mfg. Co.
Wheel-Horse Products, Inc.

AERIAL BUCKET LIFTS

Arlo Industries, Inc.
Asplundh Chipper Co.
Baker Equipment Engineering Co.
Deere & Co.
Halline Utility Equipment Co.
Hughes-Keenan Skyworker Div. Transairco
Hunt-Pierce Corp.
Lockwood Corp.
McCabe-Powers Body Co.
Mobile Aerial Towers, Inc.
Pitman Mfg. Co.
Skyworker Div., Transair Co., Inc.
VersaLift Sales Co.

AERIAL BUCKET SAFETY BELTS

Bartlett Mfg. Co.
W. M. Bashlin Co.
Mine Safety Appliances Co.
Safety Test & Equipment Co., Inc.

AERIAL APPLICATORS

Simplex Mfg. Co.

AERIAL PLATFORMS

Mobile Aerial Towers, Inc.

AIR BLAST APPLICATOR

Allied Biological Control Corp.
Aquanautics, Inc.
John Bean Div., FMC Corp.
Buffalo Turbine Ag. Equip. Co.
Friend Manufacturing Corp.
F. E. Myers & Bro. Co.
Rear's Mfg. Co.
Root-Lowell Corp.
Silver Creek Precision Corp.
Solo Industries

AIRCRAFT, FIXED WING

Aero Commander Div., North American Rockwell
Cessna Aircraft Co.
Grumman Aircraft Corp.
Imco, Inc.
Piper Aircraft Corp.
Snow Aeronautical Corp.

AIRCRAFT, HELICOPTER

Bell Helicopter Co.
Gyrodyne Co. of America
Hiller Aircraft Corp.
Republic Aviation Corp.
Sikorsky Aviation Div.

AIR-POLLUTION CONTROLS

DriAll Drier's Inc.

ALGAECIDE APPLICATORS

Applied Biochemists, Inc.

ALTERNATORS

New World Products Co., Inc.

AQUATIC WEED HARVESTER

Air-Lec Industries, Inc.
Aquamarine Corp.
Aquanautics, Inc.
Aquatic Controls Corp.
Clark Equipment Co.
Jari Corp.
MudCat

AQUATIC SPRAY BOATS

Allied Biological Control Corp.
Aquanautics, Inc.

AUGERS, EARTH

Allis-Chalmers Mfg. Co.
Baker Equipment Engineering Co.
Bartlett Mfg. Co.
Contree Sales, Inc.
Fairmont Hydraulics
Halline Utility Equipment Co.
Heckendorn Mfg. Co., Inc.
Hoffco, Inc.
International Harvester Co.
Johnson's Industrial Supply Co.
McCabe-Powers Body Co.
McCulloch Corp.
Melroe Mfg. Co.
New World Products Co., Inc.
Olmsteel Products, Inc.
Pitman Mfg. Co.
Rear's Mfg. Co.
Servis Equip. Co.
Special Products Co.
Stihl American, Inc.
Thor Power Tool Co.
Village Blacksmith

BACKHOES

Allis-Chalmers,
Arps Corp.
DitchWitch Trenchers, Inc.
Howard Rotavator Co., Inc.
Waldon, Inc.

BARRELS, PLASTIC-LINED

Century Engineering Corp.
Farmrite Sprayer, Inc.
Hanson Equipment Co.
Larson Machine, Inc.

BARRELS, STEEL

The Broyhill Co.
Larson Machine, Inc.

BINS, PORTABLE

Contree Sales, Inc.
Lely Corp.
Royer Foundry & Machine Co.

BLADES, DOZER SCRAPER

Arps Corp.
BMB Company, Inc.
Bolens Div., FMC Corp.
Brillion Iron Works, Inc.
J. I. Case Co.
Deere & Co.
Engineering Products Co.
Eversman Mfg. Co.
Gravely Corp.
International Harvester Co.
Johnson Hydraulic Equip. Co.
Kromer Co.

Massey-Ferguson, Inc.
Melroe Mfg. Co.
MinnTurf Equipment Designs Corp.
Olmsteel Products, Inc.
Servis Equip. Co.
Side-Winder Plant, FMC Corp.
Simplicity Mfg. Co., Inc.
Slope Tractor, Inc.
Special Products Co.
Walden, Inc.
Wheel-Horse Products, Inc.

BOATS, AIR

Allied Biological Control Center
Aquanautics, Inc.

BRIDGES, PORTABLE

Standard Mfg. Co.

BRUSHCUTTER, POWER

Asplundh Tree Expert Co.
John Bacon Corp.
BMB Co., Inc.
Brillion Iron Works, Inc.
E. L. Caldwell & Sons, Inc.
Deere & Co.
International Harvester Co.
Hoffco, Inc.
Homelite Div., Textron, Inc.
Kromer Co.
Locke Manufacturing Cos., Inc.
McCulloch Corp.
Pitman Mfg. Co.
Rowco Mfg. Co., Inc.
Side-Winder Plant, FMC Corp.
Stihl American, Inc.
The Vandermolen Co.

BRUSH HOOKS

Asplundh Tree Expert Co.
Bartlett Mfg. Co.
Harder Arborist Supply Co.
Pitman Mfg. Co.

CABLE SUPPLIES

Bartlett Mfg. Co.
H. K. Porter, Inc.
Practical Products Corp.
Product Dev. International

CARTS, DUMP

The Broyhill Co.
J. I. Case Co.

CHAIN LUBRICANTS

Itasca Products

CHEMICAL APPLICATOR, DRIP

Lakes Supply Co., Inc.

CHEMICAL APPLICATORS, GRANULAR

Asplundh Tree Expert Co.
John Bean Div., FMC Corp.
John Blue Co.
Borden Chem., Smith-Douglass Div.
Buffalo Turbine Ag. Equip. Co.
Contree Sales, Inc.
Dempster Industries, Inc.
The J. J. Dill Co.
Gandy Co.
Hub States Chemical & Equip. Corp.
Thor Power Tool Co.
International Harvester Co.
Jacobsen Mfg. Co.
Kromer Co.
Larson Machine, Inc.
Lakes Supply Co., Inc.
Lely Corp.
Solo Motors, Inc.
Southern Mill Creek Products Co., Inc.
Tarrant Mfg. Co.
Tryco Mfg. Co., Inc.
Walsh Manufacturing Co.
Waymark

CHEMICAL APPLICATORS, LIQUID

Ag-King (Div. of TAGS)
Amchem Products, Inc.
Asplundh Tree Expert Co.
Avco Ezee Flow Div.
John Bacon Corp.
John Bean Div., FMC Corp.
John Blue Co.
Bowie Machine Works, Inc.
The Broyhill Co.
Buffalo Turbine Ag. Equip. Co.
Century Engineering Corp.
Clark Mfg. Co.
Contree Sales, Inc.
Deere & Co.
DEFCO
The J. J. Dill Co.
Dempster Industries, Inc.
Red Ewald, Inc.
Farmrite Sprayer, Inc.
Friend Mfg. Corp.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hanson Equipment Co.
Hub States Chemical & Equip. Corp.
H. D. Hudson Mfg. Co.
International Harvester Co.
Jacobsen Mfg. Co.
Lakes Supply Co., Inc.
Larson Machine, Inc.
Melnor Industries, Inc.
F. E. Myers & Bro. Co.
Rear's Mfg. Co.
Root-Lowell Corp.
Silver Creek Precision Corp.
Solo Motors, Inc.
Southern Mill Creek Products Co., Inc.

anti des icc ant

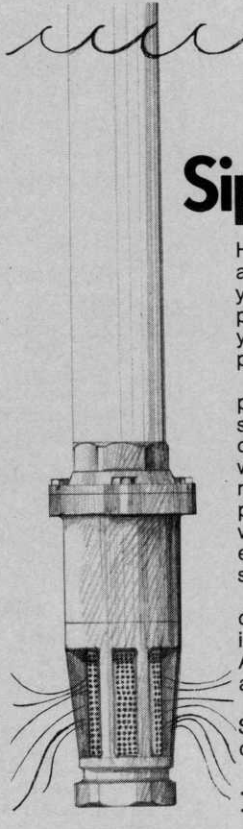
number one

Independent laboratory tests prove WILT PRUF 40 to 50 times more effective in stopping excess water-loss than any substitutes. You can have test details on request. Better still, you can try WILT PRUF yourself as a preventive against transplant shock, winter kill, summer scald, city air pollution. You'll find it's a real life saver. There is no second choice! *Write on your letterhead for informative free literature.*

WILT PRUF®

NURSERY SPECIALTY PRODUCTS, INC. / 410 Greenwich Ave., Greenwich, Conn. 06830 (203) 661-5840

For More Details Circle (117) on Reply Card



Big Sipper

Here's a suction strainer that's all sip and no spit—just what you need when you're filling your spray tank from pond or stream. And it's just what you need to comply with recent pollution control laws.

Big Sipper sucks up more water per minute for more efficient spraying. Yet there's no danger that chemicals will siphon back into your water source. A corrosion-free neoprene ball instantly seals off any possible siphoning at shut-down. It works far more assuredly than an easily-jammed gate valve or a sluggish, corrosion-prone metal ball.

The Big Sipper is a lightweight casting, so there's less danger it'll sink into the muddy bottom. And the strainer is recessed to assure free water passage.

Get all the facts about the Big Sipper. Write for our free spray hose coupling and accessory catalog.

BAR-SPRAY a division of

BAR-WAY
MANUFACTURING COMPANY
P.O. Box 640 Stamford, Connecticut 06904

For More Details Circle (126) on Reply Card

Superior Chemical Products, Inc.
Tarrant Mfg. Co.
Thompson-Hayward Chemical Co.
Tryco Mfg. Co., Inc.
Universal Metal Products Div.
The Vandermolen Co.
Walsh Manufacturing Co.
Waymark

CHESTS, TOOL

HEMCO Corporation
Knaack Mfg. Co.

CHIPPERS

Asplundh Chipper Co.
E. W. Bliss Co.
Fitchburg Engineering Corp.
H & G Tool Co.
Lindig Mfg. Co.
M-B Company
Mitts & Merrill, Inc
Morbark Industries, Inc.
Papec Machine Co.
Piqua Engineering, Inc.
Precision Chipper Corp.
Safety Test & Equipment Co., Inc.
Trailevator Div., Magline, Inc.
Vermeer Mfg. Co.
Wayne Manufacturing Co.

CLIMBERS, SPURS, BELTS

Asplundh Tree Expert Co.
Bartlett Mfg. Co.
W. M. Bashlin Co.
Product Dev. International

COMBS, TURF

Johnson Hydraulic Equip. Co.
Parker Sweeper Co.
Rental Equipment Mfg. Co.
Ryan Equipment Mfg. Co.

CRANES

Arlo Industries, Inc.
Baker Equipment Engineering Co.
J. I. Case Co.
Deere & Co.
Dico Side-O-Matic
Halline Utility Equipment Co.
Hiab Hydraulics, Inc.
Ideal Crane Div.
International Harvester Co.
National Crane Corp.
Pitman Mfg. Co.
Servis Equip. Co.
Weldex

DISKS, CULTIVATING

Allis-Chalmers Mfg. Co.
J. I. Case Co.
Deere & Co.
Engineering Products Co.
Ford Motor Co., Tractor Div.
Gravely Corp.
International Harvester Co.
Massey-Ferguson, Inc.
Wheel-Horse Products, Inc.

DRAINAGE EQUIPMENT

Quality Marsh Equip. Co.

DRILLS (Field)

J. I. Case Co.
Deere & Co.
Gandy Co.
International Harvester Co.
Massey-Ferguson, Inc.

DRILLS (Hand & Power Tool)

Bartlett Mfg. Co.
Black & Decker Mfg. Co.
Fairmont Hydraulics
Halline Utility Equip. Co.
Hoffco, Inc.
Skil Corp.
Stihl American, Inc.

DUSTERS

John Bean Div., FMC Corp.
John Blue Co., Inc.
Buffalo Turbine Ag. Equip. Co.
Champion Sprayer Co.
R. E. Chapin Mfg. Works, Inc.
DeVilbiss Co.
The J. J. Dill Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
H. D. Hudson Mfg. Co.
The Ben Meadows Co.
Root-Lowell Corp.
Solo Motors, Inc.
Southern Mill Creek Products Co., Inc.
Superior Chemical Products, Inc.
Universal Metal Products Div.
The Vandermolen Co.

EROSION CONTROL MATERIALS

Bemis Mfg. Co.

FIRST-AID KITS

American Optical Co.
Mine Safety Appliances Co.
Pulmosan Safety Equipment Corp.
Scott Aviation Corp.

Welsh Mfg. Co.

FLAMETHROWERS (SPRAYERS)

John Bean Div., FMC Corp.
Blackwell Burner Co.
R. E. Chapin Mfg. Works, Inc.
Cranco Co.
Gotcher Engineering & Mfg. Co.
H. D. Hudson Mfg. Co.
Solo Motors, Inc.
Superior Chemical Products, Inc.
Tree-Ject Co.
Universal Metal Products Div.
The Vandermolen Co.

FOGGERS

London Fog Co.
The Vandermolen Co.
Village Blacksmith

FORK LIFTS

Allis-Chalmers Mfg. Co.
International Harvester Co.
Johnson Hydraulic Equip. Co.
Otis Material Handling
Waldon, Inc.

FORK LIFT (Attachment for Tractors)

Century Engineering Corp.

FUMIGANT APPLICATORS

John Blue Co., Inc.
Dempster Industries, Inc.
The J. J. Dill Co.
Red Ewald, Inc.
Great Lakes Chemical Div.
Silver Creek Precision Corp.
Southern Mill Creek Products Co., Inc.
West Chemical Products Inc.

FUMIGANT COVERS (Plastic Sheets)

Great Lakes Chemical Div.

GENERATORS

Allis-Chalmers Mfg. Co.
John Bacon Corp.
International Harvester Co.
New World Products Co., Inc.

GRADERS

The John M. Adt Co.
Allis-Chalmers Mfg. Co.
E. L. Caldwell & Sons, Inc.
Deere & Co.
Engineering Products Co.
Ford Motor Co., Tractor Div.
Simplicity Mfg. Co., Inc.
Viking Mfg. Co.
Wheel-Horse Products, Inc.

HARROW, SPRING-TOOTHED

Allis-Chalmers Mfg. Co.
Brillion Iron Works, Inc.
The Broyhill Co.
J. I. Case Co.
Clark Mfg. Co.
Deere & Co.
Engineering Products Co.
Ford Motor Co., Tractor Div.
Fuerst Brothers
Gravely Corp.
International Harvester Co.
Massey-Ferguson, Inc.
Melroe Mfg. Co.
Oliver Corp.
Simplicity Mfg. Co., Inc.

HARROW, SPIKE-TOOTHED

Brillion Iron Works, Inc.
The Broyhill Co.
J. I. Case Co.
Clark Mfg. Co.
Deere & Co.
Finn Equipment Co.
Ford Motor Co., Tractor Div.
John H. Graham & Co., Inc.
Gravely Corp.
Hahn Inc., — West Points Products
International Harvester Co.
Oliver Corp.
Wheel-Horse Products, Inc.

HELMETS

American Optical Co.
Asplundh Tree Expert Co.
Glendale Optical Co., Inc.
Great Lakes Chemical Div.
Mine Safety Appliances Co.
Pulmosan Safety Equipment Corp.
Welsh Mfg. Co.
Willson Products Div.

HOSE

Ampulco (Hardie)
Asplundh Tree Expert Co.
John Bacon Corp.
The Broyhill Co.
Century Engineering Corp.
Contree Sales, Inc.
DeVilbiss Co.
The J. J. Dill Co.
Friend Manufacturing Corp.
Great Lakes Chemical Div.
Larson Machine, Inc.
Samuel Moore & Co.
F. E. Myers & Bro. Co.
Practical Products Corp.
Sprayco Mfgs., Inc.
Superior Chemical Products, Inc.

HOSE, COUPLINGS, FITTINGS

Bar-Way Mfg. Co.

HYDRAULIC & AIR POWERED TOOLS

Ackley Mfg. Co.
Fairmont Hydraulics
New World Products, Inc.

HYDRAULIC DUMPING HOISTS

Collins Associates, Inc.

HYDRAULIC LIFTS

Howard Rotavator Co., Inc.
Pitman Mfg. Co.
Trailevator Div., Magline, Inc.

HYDRAULIC SEEDING & MULCHING MACHINES

Bowie Industries, Inc.
Finn Equipment Co.
Reinco, Inc.

IRRIGATION CANAL HARVESTER

Aquatic Controls Corp.

IRRIGATION CONTROLLERS/ PROGRAMMERS

AgTronics Mfg. Co.

IRRIGATION PIPE

John Bean Div., FMC Corp.
Certain-teed Products Corp.
Johns-Manville Corp.
Practical Products Corp.
Reynolds Metals Co.
Ridge Plastics Co.
R. M. Wade & Co.
Sprinkler Irrigation Supply
Telsco Industries

IRRIGATION PIPE PULLER

Ryan Equipment Co.

IRRIGATION RISER VALVES

King Brothers Ind.
H. N. Webster Mfg.
Telsco Ind.
Williamstown Irrigation, Inc.

IRRIGATION SPRINKLER HEADS

W. D. Allen Mfg. Co.
John Bean Div., FMC Corp.
Buckner Industries, Inc.
Febco, Inc.
Melnor Industries, Inc.

Rain Bird Sprinkler
Irrigation Accessories, Inc.
Rain-O-Mat Sprinklers
H. B. Sherman Mfg. Co.
Telsco Industries
Toro Mfg. Corp.
Turf Irrigation Corp.
R. M. Wade & Co.
Williamstown Irrigation, Inc.

IRRIGATION SYSTEMS, COMPLETE

Adamson Sprinkler Co.
John Bean Div., FMC Corp.
Buckner Industries, Inc.
ENRESCO, Inc.
Febco, Inc.
International Plastics, Inc.
Irrigation Accessories Co.
Lockwood Corp.
Oliver Corp.
Plains Supply Co.
Rain Jet Corp.
Rain-O-Mat Sprinklers
Sprinkler Irrigation Supply
Submatic, Inc.
Telsco Industries
The Thompson Manufacturing Co.
Toro Manufacturing Corp.
Turf Irrigation Corp.
Vermeer Manufacturing Co.
R. M. Wade & Co.
Williamstown Irrigation, Inc.

KNIVES, INJECTOR

Contree Sales, Inc.

LAWN CARTS

J. I. Case Co., Outdoor Power Equipment Div.

LEAF BLOWERS

American-Lincoln Corp.
Billy Goat Industries, Inc.
Clipper Mfg. Co.
The J. J. Dill Co.
Finn Equipment Co.
Gravely Corp.
Jacobsen Mfg. Co.
Lindell Pattern Works
F. E. Myers & Bro. Co.
Papec Machine Co.
Parker Sweeper Co.
Rogers Mfg. Co., Inc.
Solo Motors, Inc.
Southern Mill Creek Products Co., Inc.
The Vandermolen Co.

LEVELERS

Deere & Co.
DriAll Drier's Inc.
Eversman Mfg. Co.
International Harvester Co.
MinnTurf Equipment Designs Corp.
Side-Winder Plant, FMC Corp.
Slope Tractor, Inc.
Special Products Co.
Viking Mfg. Co.
York Modern Corp.

LITTER RECEPTACLES

Bemis Mfg. Co.
Friend Mfg. Corp.
Howard Metalcraft Co.
Victor Stanley, Inc.

LOADERS, BOOM

J. I. Case Co.
Century Engineering Corp.
Deere & Co.
Dico Side-O-Matic
Howard Rotavator Co., Inc.
Pitman Mfg. Co.
Waldon, Inc.

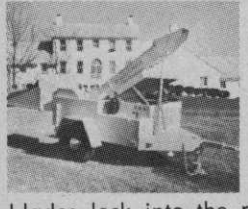
LOADER, SELF PROPELLED

Clark Equipment Co.
Erickson Corp.

LOADERS, TRACTOR MOUNTED

Allis-Chalmers Mfg. Co.
Arps Corp.
J. I. Case Co.
Danuser Machine Works
Deere & Co.
Engineering Products Co.
Ford Motor Co., Tractor Div.
Gravely Corp.

SAFETY TEST
HEAVY DUTY WOOD/CHUCK®



Okay. But what puts Safety Test Wood/Chuck in a class by itself where chippers are concerned? Just superior performance, economy and safety.

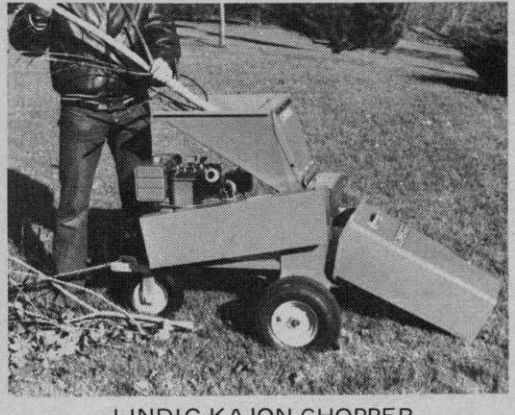
First, there's less down-time for blade adjustment and replacement. The Wood/Chuck's blades lock into the rugged rotor and automatically position properly. This takes just minutes for a Wood/Chuck but often requires hours with other chippers. Wood/Chuck's blades are "V"-grooved for full length support that means extra safety. And where most "chippers'" blades are so positioned that chips are actually crushed away . . . the Wood/Chuck's shallow blade angle slices chips away. Goodbye friction, wasted energy and vibration; jobs go faster, fuel goes farther.

Only the Wood/Chuck has really been built from the ground up as a chipper for heavy-duty use. It's modern, functional, no-nonsense design sets it apart. Above all, the Safety Test Wood/Chuck has that built-in Safety Test "Extra Measure" of dependability. You can rely on it to do a full day's work . . . day after day, year after year. Frankly, there are dozens of reasons why no other chipper compares with the Wood/Chuck. You owe it to yourself to get the full story from your Wood/Chuck representative or write Safety Test & Equipment Co., Inc., P.O. Drawer 400, Shelby, N. C. 28150.

For More Details Circle (142) on Reply Card

THE ALL-PURPOSE CHOPPER

To Dispose Of Your
Branches, Stalks, Vines, Trimmings



LINDIG KAJON CHOPPER

Now there is a 4 and 7 hp chopper to rapidly process branches (up to 2¼" dia.), yard trimmings and leaves. Kajon works just like the large chippers to turn leftover organic material into instant mulch. Bag it for convenient disposal or re-use it as natural fertilizer. Kajon replaces outdoor burning, helps keep our air a little cleaner. Gas engine or electric motor available.

LINDIG
Manufacturing Corp.
1877 W. County Rd. C
St. Paul, Minn. 55113

PLEASE RUSH INFORMATION
Name _____
Address _____

For More Details Circle (143) on Reply Card

International Harvester Co.
Johnson Hydraulic Equip. Co.
Koyker Mfg. Co.
Massey-Ferguson, Inc.
Melroe Mfg. Co.
Oliver Corp.
Rear's Mfg. Co.
The Sun-Mastr Corp.
Vermeer Manufacturing Co.

LOG SPLITTERS

Lupton Tree Service
Piqua Engineering, Inc.
Vermeer Mfg. Co.
Waco Lickity Log Splitter Div.

MARKERS, LINE

Bunton Company
Fox Valley Marking Systems
Goodall Div.

MASKS, DUST

Acme Protection Equipment Corp.
American Optical Co.
The J. J. Dill Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
Martindale Electric Co.
Mine Safety Appliances Co.
Pulmosan Safety Equipment Corp.
Scott Aviation Corp.
The Vandermolen Co.
Welsh Mfg. Co.
Willson Products Div.

MASKS, GAS

Acme Protection Equipment Corp.
The J. J. Dill Co.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
Mine Safety Appliances Co.
Pulmosan Safety Equipment Corp.
Scott Aviation Corp.
Willson Products Div.

MATERIALS HANDLING

B.A.G. Corp.
Bemis Mfg. Co.

MEASURING WHEEL

Ferguson Fumigants, Inc.
Gandy Co.
Great Lakes Chemical Div.
B. G. Reilly Co.
Rolatape, Inc.

MISCELLANEOUS

CLUTCHES

Mercury Clutch Div.

COMMUNICATION SYSTEMS

Motorola Comm. & Elect., Inc.

CONDENSATION DETECTOR

AgTronics Mfg. Co.

CONVEYORS, PORTABLE, BELT

Stone Conveyor Co., Inc.

DIFFERENTIALS

Tecumseh Products Co.

EDGING, LAWN

Ryerson Steel

FOAM ACTIVATOR

Wilsco, Inc.

FLOTATION TIRES & WHEELS

Daymon Mfg. Co.
Martin Tire & Supply, Inc.

GARDEN TOOLS

Village Blacksmith

GASOLINE ENGINE

Rudd Manufacturing, Inc.
Teledyne Wisconsin Motor Corp.

GEARED ANGLE DRIVES

Tecumseh Products Co.

GOLF COURSE EQUIPMENT

(Poles, Cups, Ball Washers, Signs, Etc.)
Standard Mfg. Co.

HYPO-HATCHET INJECTOR

The Ansul Co.

INJECTORS, CHEMICAL, FERTILIZER

C.L.M. National
Creative Sales, Inc.
Inject-O-Meter Mfg. Co., Inc.

LEAKAGE/SPILLAGE DETECTOR

AgTronics Mfg. Co.

LIQUID LEVEL DETECTOR

AgTronics Mfg. Co.

ROTARY LAWN MOWER BLADES

The Whitaker Manufacturing Co.

RUST PREVENTATIVE

WD-40 Company

SICKLE BAR MOWER REPAIRS

The Whitaker Manufacturing Co.

SOLIDS SEPARATOR

A. V. Electronics, Inc.

STORAGE TENDER UNIT

Rudd Manufacturing Co.

TRANSAXLES

Tecumseh Products Co.

TRANSMISSIONS

MinnTurf Equipment Designs Corp.
Tecumseh Products Co.
Turf Racks

MISTBLOWERS, BACKPACK

Asplundh Tree Expert Co.
Buffalo Turbine Ag. Equip. Co.
Burton Supply Co., Inc.
The J. J. Dill Co.
Great Lakes Chemical Div.
Hanson Equipment Co.
Hub States Chemical & Equip. Corp.
H. D. Hudson Mfg. Co.
Silver Creek Precision Corp.
Solo Motors, Inc.
Southern Mill Creek Products Co., Inc.
Superior Chemical Products, Inc.
Tradewinds, Inc.
The Vandermolen Co.

MISTBLOWERS, ELECTRIC

Root-Lowell Corp.

MISTBLOWERS, SELF-PROPELLED

Solo Motors, Inc.

MISTBLOWERS, TRUCK-MOUNTED

Ag King (Div. of TAGS)
Ampulco (Hardie)
Aquanautics, Inc.
John Bean Div., FMC Corp.
Besler, A Div. of C-C Industries
The Broyhill Co.
Buffalo Turbine Ag. Equip. Co.
The J. J. Dill Co.
Finn Equipment Co.
F. E. Myers & Bro. Co.
Silver Creek Precision Corp.
Solo Motors, Inc.
Southern Mill Creek Products Co., Inc.
Superior Chemical Products, Inc.
The Vandermolen Co.

MISTBLOWERS, NOZZLE PARTS

Ag King (Div. of TAGS)
John Bean Div., FMC Corp.
The Broyhill Co.
Buffalo Turbine Equipment Co.
Century Engineering Corp.
Delevan Mfg. Co.
The J. J. Dill Co.
Great Lakes Chemical Div.
H. D. Hudson Mfg. Co.
F. E. Myers & Bro. Co.
Solo Motors, Inc.
Southern Mill Creek Products Co., Inc.

MOISTURE METERS

AgTronics Mfg. Co.
WestBerg Mfg. Co.

MOTORS

Allegretti & Co.
L. M. Cox Mfg. Co.
International Harvester Co.
Onan Div., Studebaker Corp.
Practical Products Corp.
Sprayco Mfgs., Inc.
Superior Chemical Products, Inc.
Tecumseh Products Co.
The Vandemolen Co.
Waukesha Motor Co.

MOWER REPAIR STANDS (HYDRAULIC & MANUAL)

G & H Products, Inc.

MOWERS, BLADES & CUTTING PARTS

The Whitaker Manufacturing Co.

MOWERS, FLAIL

John Bean Div., FMC Corp.
BMB Co., Inc.
Brillion Iron Works, Inc.
E. L. Caldwell & Sons, Inc.
J. I. Case Co.
Deere & Co.
Excel Industries, Inc.
Ford Motor Co., Tractor Div.
Gravely Corp.
Henderson Mfg. Co.
Hoffco, Inc.
International Harvester Co.
Lakes Supply Co., Inc.
Massey-Ferguson, Inc.
Mott Corp.
Ryan Equipment Co.
Side-Winder Plant, FMC Corp.
Slope Tractor, Inc.
The Sun-Mastr Corp.
Terrain King Corp.

MOWERS, GANG

Allis-Chalmers Mfg. Co.
Bolens Div., FMC Corp.
J. I. Case Co.
Deere & Co.
Ford Motor Co., Tractor Div.
Gravely Corp.
Hahn Inc., — West Points Products
International Harvester Co.
Jacobsen Mfg. Co.
Lakes Supply Co., Inc.
National Mower Co.
Ransomes, Sims, Jeffries, Ltd.
Roseman Mower Corp.
Roxy-Bonner, Inc.
Simplicity Mfg. Co., Inc.
Southern Mill Creek Products Co., Inc.
The Sun-Mastr Corp.
Toro Manufacturing Corp.

MOWERS, GREENS

Hahn Inc., — West Points Products
Jacobsen Mfg. Co.
Ransomes, Sims, Jeffries, Ltd.
Toro Mfg. Corp.

MOWERS, REEL

Bolens Div., FMC Corp.
Bunton Company
J. I. Case Co.
Devere-Locke Div., Locke Mfg. Co.
Engineering Products Co.
Ford Motor Co., Tractor Div.
Goodall Div.
Gravely Corp.
International Harvester Co.
Jacobsen Mfg. Co.
Jari Corp.
Kin-Co
Lakes Supply Co., Inc.
Locke Mfg. Co., Inc.
MTD Products, Inc.
National Mower Co.
Roseman Mower Corp.
Roxy-Bonner, Inc.
Simplicity Mfg. Co., Inc.
Southern Mill Creek Products Co., Inc.
The Sun-Mastr Corp.
Toro Mfg. Corp.
Wheel-Horse Products, Inc.

MOWERS, ROTARY

Allis-Chalmers Mfg. Co.
Ariens Co.
Avco Ezee Flow Div.
Bachtold Bros.
John Bean Division, FMC Corp.
The Black & Decker Mfg. Co.
John Blue Co.
BMB Co.
Bolens Div., FMC Corp.
Brillion Iron Works, Inc.
Bunton Co.
E. L. Caldwell & Sons, Inc.
J. I. Case Co.
Deere & Co.
Engineering Products Co.
Excel Industries, Inc.
Ford Motor Co., Tractor Div.
Gale Products
Goodall Div.
Gravely Corp.
Heckendorn Mfg. Co., Inc.
Homelite Div., Textron, Inc.
International Harvester Co.
Jacobsen Mfg. Co.
Jari Corp.
Kromer Co.
Lakes Supply Co., Inc.
Locke Mfg. Co., Inc.
Massey-Ferguson, Inc.
MTD Products, Inc.
Oliver Corp.
J. R. Pendleton & Son Inc.
Pennington Mfg. Co.
Quick Manufacturing, Inc.
Rear's Mfg. Co.
Servis Equip. Co.
Side-Winder Plant, FMC Corp.
Simplicity Mfg. Co., Inc.
Slope Tractor, Inc.
Speedex Tractor Co.
Solo Motors, Inc.
Southern Mill Creek Products Co., Inc.
The Sun-Master Corp.
Terrain King Corp.
Thor Power Tool Co.
Toro Manufacturing Corp.
Triumph Machinery Co.
Wheel-Horse Products, Inc.
Yazoo Mfg. Co., Inc.

MOWERS, SICKLE BAR

Allis-Chalmers Mfg. Co.
Gravely Tractors
International Harvester Co.
Jacobsen Mfg. Co.
Jari Corp.
Massey-Ferguson, Inc.
Simplicity Mfg. Co., Inc.

MOWERS, VERTICAL (De-Thatchers)

Allis-Chalmers Mfg. Co.
BMB Co., Inc.
Deere & Co.
Hahn Inc., — West Points Products
Henderson Mfg. Co.
International Harvester Co.
Jacobsen Mfg. Co.
Rental Equipment Mfg. Co.
Rogers Mfg. Co., Inc.
Ryan Equipment Co.
Southern Mill Creek Products Co., Inc.
Sweepster, Inc.
Terrain King Corp.
Triumph Machinery Co.
West Point Products Corp.

MULCH BLOWERS

Finn Equipment Co.
Reinco

NOZZLES, FOAM

Wilsco, Inc.

PASTEURIZERS, SOIL

Tarrant Mfg. Co.

PROPORTIONING SYSTEMS

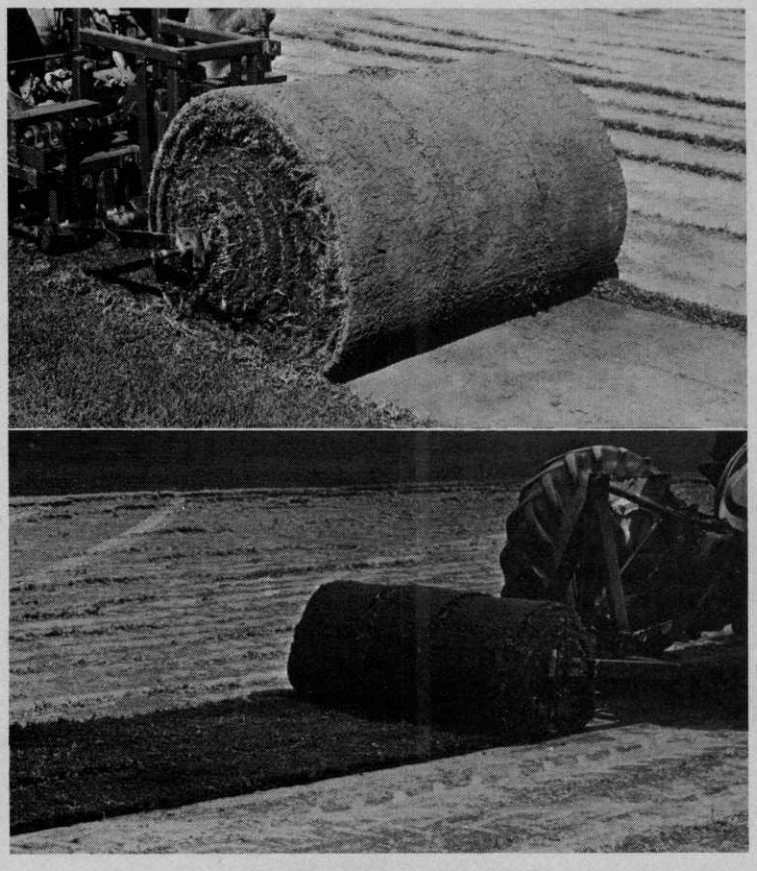
Contree Sales, Inc.
Vineland Laboratories, Inc.

PROTECTIVE CLOTHING

American Optical Co.
Charleston Rubber Co.
Mine Safety Appliances Co.

PRUNERS

Ackley Mfg. Co.



BECK'S BIG ROLL SYSTEM... HARVESTER, LOADER, LAYER

Use your 3-point hitch equipment

This is the fastest system on the market. Cut and roll up to 1200 yards per hour without manual handling of sod, and lay it mechanically as fast as it's harvested. Inexpensive tubular reels take less space than pallets, are lighter, last longer, and permit easy loading and unloading with a fork-lift mounted on a 3-point hitch. All lifting and handling is done by machine. Because it slashes labor costs for the landscaper, it is a sales machine for the grower. Stretches sod 3% to 5%. Leaves lawns smoother with fewer seams and joints.

For more information, write:
BECK MANUFACTURING COMPANY
P. O. Box 752 • Auburn, Alabama 36830

BECK MANUFACTURING CO.

Pennstar Kentucky Bluegrass.

Perhaps the best all-around turfgrass available today.

Highly resistant to stripe smut, rust and leaf spot. Stripe Smut (Ustilago striiformis) sporlates in May or June, shredding individual leaves. Field trials show that, while Merion is quite susceptible, Pennstar is highly resistant. A very strong plus.

Pennstar is also highly resistant to rust (Puccinia spp). Rated on a scale of 0 (best) to 10 (worst), test data give a 1.7 rating to Pennstar versus 8.7 for Merion.

Most improved bluegrass varieties are resistant to leaf spot (Helminthosporium vagans). However, in university tests, Pennstar was significantly *more resistant* than some improved varieties.

Well adapted from the East Coast to California. Pennstar's disease resistance, drought resistance and other characteristics enable it to do well wherever Kentucky Bluegrass is adapted. It establishes well and resists fadeout under a wide variation in management.

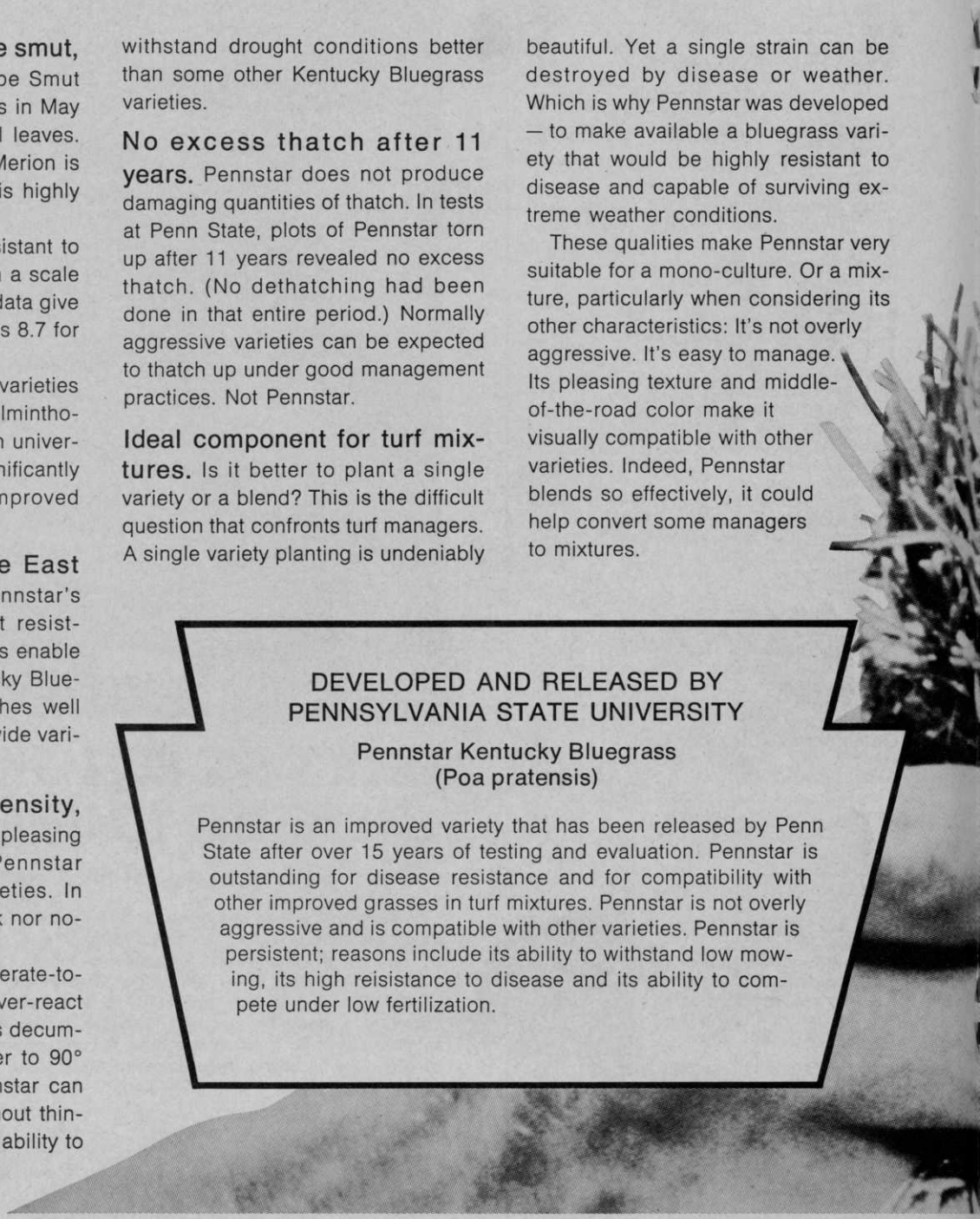
Medium color, good density, easy to manage. With its pleasing medium bluegrass color, Pennstar blends well with other varieties. In mixtures, it's neither too dark nor noticeably light.

Pennstar persists at moderate-to-low fertility levels. It doesn't over-react to higher fertility. Because it's decumbent (the leaf angle is closer to 90° from vertical than 45°) Pennstar can tolerate a close mowing without thinning out. And it's shown the ability to withstand drought conditions better than some other Kentucky Bluegrass varieties.

No excess thatch after 11 years. Pennstar does not produce damaging quantities of thatch. In tests at Penn State, plots of Pennstar torn up after 11 years revealed no excess thatch. (No dethatching had been done in that entire period.) Normally aggressive varieties can be expected to thatch up under good management practices. Not Pennstar.

Ideal component for turf mixtures. Is it better to plant a single variety or a blend? This is the difficult question that confronts turf managers. A single variety planting is undeniably beautiful. Yet a single strain can be destroyed by disease or weather. Which is why Pennstar was developed — to make available a bluegrass variety that would be highly resistant to disease and capable of surviving extreme weather conditions.

These qualities make Pennstar very suitable for a mono-culture. Or a mixture, particularly when considering its other characteristics: It's not overly aggressive. It's easy to manage. Its pleasing texture and middle-of-the-road color make it visually compatible with other varieties. Indeed, Pennstar blends so effectively, it could help convert some managers to mixtures.



DEVELOPED AND RELEASED BY
PENNSYLVANIA STATE UNIVERSITY

Pennstar Kentucky Bluegrass
(Poa pratensis)

Pennstar is an improved variety that has been released by Penn State after over 15 years of testing and evaluation. Pennstar is outstanding for disease resistance and for compatibility with other improved grasses in turf mixtures. Pennstar is not overly aggressive and is compatible with other varieties. Pennstar is persistent; reasons include its ability to withstand low mowing, its high reisistance to disease and its ability to compete under low fertilization.

Some expert (and unbiased) opinions.

"Disease resistance was good, it had an attractive color, texture, and a good growth habit. The most significant item was its good performance under relatively low levels of fertility."

"In our trials, Pennstar has been the best variety for which seed is available."

"Average quality ratings (9 = best) based on density, color and uniformity placed Pennstar highest with a score of 5.6 as compared to other varieties such as Geary 5.0, Merion 4.0 and Windsor 3.8. These particular plots have been under minimum maintenance and care."

Turf Buyers' Checklist

IDEAL	Pennstar
1. It should be able to survive periods of drought.	1. In field tests, Pennstar has survived extended periods of drought. ☑
2. It should be able to survive with moderate fertility.	2. Pennstar requires only the moderate management typical of most bluegrasses. ☑
3. It should be decumbent in growth habit so it can be mowed short without thinning out.	3. Pennstar's decumbent growth habit permits it to be mowed very short without thinning out. ☑
4. It should not be overly aggressive—should not crowd out companion grasses.	4. Pennstar will hold its own against overly-aggressive varieties, but does not crowd out less aggressive types. ☑
5. Its color should not be so dark or so light as to give a mixture a mottled appearance.	5. Pennstar has a pleasing medium blue-green color that blends well with all other varieties. ☑
6. It should not "go wild" when fertilized. Emergence and growth rates should be moderate.	6. Pennstar's rate of growth is not overly affected by increased use of fertilizers; its emergence and growth patterns are moderate. ☑
7. It should not produce excess thatch, even after years of establishment.	7. Pennstar produced practically no thatch in 11 years of testing. ☑
8. It should be highly resistant to common diseases, and particularly to "killer types" such as stripe smut and leaf spot.	8. Pennstar is practically immune to leaf spot, highly resistant to stripe smut. ☑
9. It should be widely adapted throughout the zone of species adaptation.	9. Pennstar is widely adapted from California to the East Coast, in all the normal bluegrass areas. ☑
10. It should be well tested for a period of years over many locations so that its characteristics are well understood.	10. Pennstar has been tested for 15 years in locations from coast to coast. ☑

After you've checked them all . . . Pennstar

Pennstar
Kentucky Bluegrass.

TO: Pennstar Kentucky Bluegrass WTT-12
P.O. Box 923, Minneapolis, Minnesota 55440

☐ Please send me prices, availability, test information, purity and germination data on Pennstar Kentucky Bluegrass.

Name_____

Club or Company_____

Address_____

City_____ State_____ Zip_____

For More Details Circle (118) on Reply Card

Asplundh Tree Expert Co.
John Bacon Corp.
Bartlett Mfg. Co.
W. M. Bashlin Co.
Fairmont Hydraulics
Fanno Saw Works
Friend Mfg. Co.
John H. Graham & Co., Inc.
Halline Utility Equipment Co.
Harder Arborist Supply Co.
Homelite Div., Textron, Inc.
Hunt-Pierce Corp.
Limb-Lopper Co., Inc.
Miller Robinson Co.
Melnor Industries, Inc.
New World Products Co., Inc.
Pitman Mfg. Co.
H. K. Porter, Inc.
Rowco Mfg. Co., Inc.
Seymour Smith & Son, Inc.
Stihl American, Inc.
Village Blacksmith

PUMPS

Ace Pump Corp.
Ampulco (Hardie)
Aurora Pump Div.
John Bacon Corp.
John Bean Div., FMC Corp.
John Blue Co.
Bowie Industries, Inc.
The Broyhill Co.
Century Engineering Corp.
Contree Sales, Inc.
DEFCO
Delavan Manufacturing Co.
DeVilbiss Co.
Dempster Industries, Inc.
The J. J. Dill Co.
Farmrite Sprayer, Inc.
Farris Chemical Co.
Friend Manufacturing Corp.
Gotcher Engineering & Mfg. Co.
Hanson Equipment Co.
Homelite Div., Textron, Inc.
H. D. Hudson Mfg. Co.
Hydraulic Products Co., Inc.
Hypro, Inc.
Larson Machine, Inc.
Lely Corp.
Marlow Pumps Div.
Midland Prod. Co.
Minnesota Wanner Co.
F. E. Myers & Bro. Co.
Oberdorfer Pump Div.
Orline Products Div.
Practical Products Corp.
Simplex Mfg. Co.
Solo Motors, Inc.
Sprayco Mfgs. Co.
Thor Power Tool Co.
Tryco Mfg. Co., Inc.
Universal Motor Co.
Viking Pump Co.
Williamstown Irrigation Inc.

RAKES

Arps Corp.
Asplundh Tree Expert Co.
Bartlett Mfg. Co.
Brillion Iron Works, Inc.
Deere & Co.
Henderson Mfg. Co.
Ford Motor Co., Tractor Div.
International Harvester Co.
Jari Corp.
F. D. Kees Mfg. Co.
Lely Corp.
Rental Equipment Mfg. Co.
Roseman Mower Corp.
Ryan Equipment Co.
Servis Equip. Co.
Triumph Machinery Co.
York Modern Corp.

REELS, HOSE

Clifford B. Hannay & Son, Inc.
Melnor Industries, Inc.

RESPIRATORS

Acme Protection Equipment Corp.
American Optical Co.
John Bacon Corp.
The J. J. Dill Co.
Friend Mfg. Co.
Glendale Optical Co., Inc.
Great Lakes Chemical Div.
Hub States Chemical & Equip. Corp.
Martindale Electric Co.
Mine Safety Appliances Co.
Pulmosan Safety Equipment Corp.
Scott Aviation Corp.
Superior Chemical Products, Inc.
The Vandermolen Co.
Welsh Mfg. Co.
West Chemical Products, Inc.
Willson Products Div.

ROLLER-SPRAYERS

Red Ewald, Inc.
Friend Mfg. Co.
Lakes Supply Co., Inc.
Rear's Mfg. Co.
Sprayco Mfgs. Co.

ROLLERS, TURF

Big J Products, Inc.
Brillion Iron Works, Inc.
Daymon Mfg. Corp.
Ford Motor Co., Tractor Div.
John H. Graham & Co., Inc.
Gravely Corp.
International Harvester Co.
Princeton Turf Farms
Rogers Mfg. Co., Inc.
Rosco Manufacturing Co.
Ryan Equipment Co.
Simplicity Mfg. Co., Inc.
Sun Industry, Inc.
Wheel-Horse Products, Inc.

ROOT-FEEDING RODS

John Bean Div., FMC Corp.
Ross Daniels, Inc.
The J. J. Dill Co.
Dobbins Div., Chamberlain Mfg. Corp.
Hub States Chemical & Equip. Corp.
Hydroponic Chemical Co., Inc.
Minnesota Wanner Co.
Universal Metal Products Div.

SAFETY BELTS AND SADDLES, TREE CLIMBERS

Asplundh Tree Expert Co.
Bartlett Mfg. Co.
W. M. Bashlin Co.
Mine Safety Appliances Co.
Product Dev. International
Safety Test & Equipment Co., Inc.

SAFETY EQUIPMENT

Acme Protection Equipment Corp.
American Optical Co.
Asplundh Tree Expert Co.
Bartlett Mfg. Co.
W. M. Bashlin Co.
John Bean Div., FMC Corp.
Charleston Rubber Co.
Glendale Optical Co.
Great Lakes Chemical Div.
Harder Arborist Supply Co.
Mine Safety Appliances Co.
Pulmosan Safety Equipment Corp.
Safety Test & Equipment Co., Inc.
Scott Aviation Corp.
Southern Mill Creek Products Co., Inc.
The Vandermolen Co.
Welsh Mfg. Co.
Willson Products Div.

SAWS, CHAIN

Homelite Div., Textron Inc.
New World Products Co., Inc.
Limb-Lopper Co., Inc.
McCulloch Corp.
Orline Products Div.
Pioneer Chain Saws Ltd.
Stihl American Inc.

SAWS, MANUAL

Bartlett Mfg. Co.
John Bacon Corp.
W. M. Bashlin Co.
The Fanno Saw Works
John H. Graham & Co., Inc.
Harder Arborist Supply Co.
Safety Test & Equipment Co., Inc.
Seymour Smith & Son, Inc.
Wright Saw Div.

SAWS, POWER

Ackley Mfg. Co.
American-Lincoln Corp.
Asplundh Tree Expert Co.
John Bacon Corp.
The Black & Decker Mfg. Co.
L. M. Cox Mfg. Co., Inc.
DESA Industries, Inc.
Engineering Products Co.
Fairmont Hydraulics
Fanno Saw Works
Friend Mfg. Co.
Gravely Corp.
Great Lakes Chemical Div.
Halline Utility Equipment Co.
Hoffco, Inc.
Homelite Div., Textron, Inc.
Hunt-Pierce Corp.
Limb-Lopper Co., Inc.
McCulloch Corp.
Miller-Robinson Co.
New World Products Co., Inc.
Pioneer Saws Div., Gale Products
Pitman Mfg. Co.
Remington Arms Co., Inc.
Rowco Mfg. Co., Inc.
Solo Motors, Inc.
Stihl American, Inc.
The Sun-Mastr Corp.
Thor Power Tool Co.
Wright Saw Div.

SAWS, CHAIN, PARTS

Foley Mfg. Co.
Omark Industries, Inc.
Pioneer Chain Saws Ltd.
Sabre Saw Chain, Inc.

SCABBARDS, SAW

Tallman Equip. Co. Inc.

SCRAPERS

BMB Company
Deere & Co.
Eversman Mfg. Co.
Gravely Corp.
International Harvester Co.
Servis Equip. Co.

SCREENERS, SOIL

Lindig Manufacturing, Inc.

SCYTHES

Hoffco, Inc.

SEEDERS, BELT TYPE

John Bean Div., FMC Corp.

SEEDERS, DISK TYPE

J. I. Case Co.
International Harvester Co.
Rogers Mfg. Co., Inc.
Vandermolen Export Co.

SEEDERS, HOPPER TYPE

Avco Ezee Flow Div.
Brettrager Manufacturing
Brillion Iron Works, Inc.
J. I. Case Co.
The Cyclone Seeder Co., Inc.
Deere & Co.
The J. J. Dill Co.
Engineering Products Co.
Gandy Co.
Garber Seeders, Inc.

Gravely Corp.
Herd Seeder Co. Inc.
International Harvester Co.
Jacobsen Mfg. Co.
Larson Machine, Inc.
Parker Sweeper Co.
Rogers Mfg. Co., Inc.
Schneider Metal Mfg. Co.
Simplex Mfg. Co.
Sunnyhill Research & Mfg. Co.
The Vandermolen Co.

SEEDERS, HYDRAULIC

Reinco Inc.

SEEDERS, SOD

Brillion Iron Works, Inc.

SHARPENER, CHAIN SAW

American-Lincoln Div.

SHEARS

John Bacon Corp.
Bartlett Mfg. Co.
Friend Mfg. Co.
John H. Graham & Co., Inc.
Melnor Industries, Inc.
H. K. Porter, Inc.
Seymour Smith & Son, Inc.
Tallman Equip. Co. Inc.

SHREDDERS, PRUNINGS

Roto-Hoe Co.

SHREDDERS, SOIL

Gravely Corp.
Kemp Mfg. Co.
Lindig Manufacturing, Inc.
Royer Foundry & Machine Co.
W-W Grinder Corp.
Deere & Co.
Engineering Products Co.
Ford Motor Co., Tractor Div.

SICKLE BAR MOWER

J. I. Case Co.
Gravely Corp.
International Harvester Co.
Kromer Co.
Simplicity Mfg. Co., Inc.
Slope Tractor, Inc.
Solo Motors, Inc.
Wheel-Horse Products, Inc.

SOD CUTTERS

Beck Mfg. Co.
Bowie Industries Inc.
Finland Turf Cut Div.
Jacobsen Mfg. Co.
James-Way Equipment Co.
Princeton Turf Farms
Ryan Equipment Co.
Sodmaster
Southern Mill Creek Products Co., Inc.

SOD HARVESTERS

Beck Mfg. Co.
Bermuda King Co.
Big J Products, Inc.
John Nunes Mechanical Harvesting Co.
Shamrock Turf Nurseries
Wiley Miner Associates, Inc.

SOD LAYERS

Beck Mfg. Co.

SOD LOADERS

Beck Mfg. Co.

SOD PLUGGER

Beck Mfg. Co.
Bowie Industries, Inc.
Hahn Inc., — West Points Products
James-Way Equipment Co.
Rogers Mfg. Co., Inc.

Southern Mill Creek Products Co., Inc.

SOD ROLLER

Daymon Mfg. Co.
Hadfield Sod Roller Co.
Ryan Equipment Co.

SOIL TESTERS

Contree Sales, Inc.
Hydroponic Chemical Co., Inc.
Kel Instruments Co., Inc.
LaMotte Chemical Products Co.
Sudbury Laboratory

SPIKERS

John H. Graham & Co., Inc.
Hahn, Inc.—West Point Products
Jacobsen Mfg. Co.

Rogers Mfg. Co., Inc.
Ryan Equipment Co.
Southern Mill Creek Products Co., Inc.

SPRAY BOOMS

AmChem Products, Inc.
Ampulco (Hardie)
John Bacon Corp.
John Bean Div., FMC Corp.
The Broyhill Co.
Century Engineering Corp.
Clark Mfg. Co.
Contree Sales, Inc.
Custom Spray Equipment Corp.
DEFCO
Dempster Industries, Inc.
The J. J. Dill Co.

HI-RANGER GETS YOU ALOFT FOR MORE JOBS

HI-RANGER® saves manpower and money, speeding operators to high work more safely. One reason is HI-RANGER'S patented one-hand control with "deadman" safety interlock. Operators work faster with less fatigue on such jobs as tree trimming and lighting maintenance. The insulated boom and easy, accurate "spotting" of the work platform promotes safety on utility jobs, while park men accomplish more with HI-RANGER because the men aloft get in closer quicker on high tree work. Write for new HI-RANGER BROCHURE for details . . .

HI-RANGER

MOBILE AERIAL TOWERS, INC. · Dept. N 2314 BOWSER AVENUE · FORT WAYNE, INDIANA 46803

For More Details Circle (116) on Reply Card

Red Ewald, Inc.
Farmrite Sprayer, Inc.
Friend Manufacturing Corp.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hanson Equipment Co.
H. D. Hudson Mfg. Co.
Kromer Co.
Larson Machine, Inc.
Mallinckrodt Chemical Works
Master Sprayers, Inc.
F. E. Myers & Bro. Co.
Oakes Mfg. Co., FMC Corp.
Papec Machine Co.
Practical Products Corp.
Rear's Mfg. Co.
Root-Lowell Corp.
Simplex Mfg. Co.
Sprayco Mfgs., Inc.
Southern Mill Creek Products Co., Inc.
Thuron Sprayer Mfg. Co.
Tote Systems Div.
Tryco Mfg. Co., Inc.
Walsh Manufacturing Co.

SPRAY GUNS

Ampulco (Hardie)
Bar-Way Mfg. Co.
John Bacon Corp.
John Bean Div., FMC Corp.
The Broyhill Co.
Century Engineering Corp.
Clark Mfg. Co.
Contree Sales, Inc.
Delavan Manufacturing Co.
DeVilbiss Co.
The J. J. Dill Co.
Farmrite Sprayer, Inc.
Friend Manufacturing Corp.
Gotcher Engineering & Mfg. Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hanson Equipment Co.
Hub States Chemical & Equip. Corp.
H. D. Hudson Mfg. Co.
Hydroponic Chemical Co., Inc.
Kromer Co.
Larson Machine, Inc.
Master Sprayers, Inc.
Melnor Industries, Inc.
F. E. Myers & Bro. Co.
Oakes Mfg. Co., FMC Corp.
Practical Products Corp.
Rear's Mfg. Co.
Root-Lowell Corp.
Silver Creek Precision Corp.
Sprayco Mfgs., Inc.
Spraying Systems Co.
Southern Mill Creek Products Co., Inc.
Wm. Steinen Mfg. Co.
The Thompson Manufacturing Co.
Thuron Sprayer Mfg. Co.
Tryco Mfg. Co., Inc.
Universal Metal Products Div.
Walsh Manufacturing Co.

SPRAY NOZZLES, COMPLETE

W. D. Allen Mfg. Co.
John Bacon Corp.
John Bean Div., FMC Corp.
The Broyhill Co.
Buffalo Turbine Equipment Co.
Century Engineering Corp.
Clark Mfg. Co.
Contree Sales, Inc.
Delavan Manufacturing Co.
DeVilbiss Co.
The J. J. Dill Co.
Farmrite Sprayer, Inc.
Friend Manufacturing Corp.
Gotcher Engineering & Mfg. Co.
Gravely Corp.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Growers Chemical Corp.
Hanson Equipment Co.
H. D. Hudson Mfg. Co.
Kromer Co.
Larson Machine, Inc.
Master Sprayers, Inc.
Melnor Industries
Monarch Mfg. Works, Inc.
F. E. Myers & Bro. Co.
Oakes Mfg. Co., FMC Corp.
Papec Machine Co.
Practical Products Corp.
Rear's Mfg. Co.
Root-Lowell Corp.
H. B. Sherman Mfg. Co.
Simplex Mfg. Co.
Sprayco Mfgs., Inc.
Spraying Systems Co.

SPRAY NOZZLES, DISKS

W. D. Allen Mfg. Co.
Amchem Products, Inc.
John Bacon Corp.
John Bean Div., FMC Corp.
The Broyhill Co.
Century Engineering Corp.
Clark Mfg. Co.
Delavan Manufacturing Co.
The J. J. Dill Co.
Farmrite Sprayer, Inc.
Friend Manufacturing Corp.
Gotcher Engineering & Mfg. Co.
Gravely Corp.
Green Lawn Laboratories, Inc.
Hanson Equipment Co.
Larson Machine, Inc.
Master Sprayers, Inc.
F. E. Myers & Bro. Co.
Oakes Mfg. Co., FMC Corp.
Practical Products Corp.
Simplex Mfg. Co.
Sprayco Mfgs., Inc.
Spraying Systems Co.
Southern Mill Creek Products Co., Inc.
Wm. Steinen Mfg. Co.
Thuron Sprayer Mfg. Co.
The Vandemolen Co.
Walsh Manufacturing Co.

SPRAY NOZZLES, WHIRLS

W. D. Allen Mfg. Co.
John Bacon Corp.
John Bean Div., FMC Corp.
The Broyhill Co.
Century Engineering Corp.
Clark Mfg. Co.
Delavan Mfg. Co.
The J. J. Dill Co.
Farmrite Sprayer, Inc.
Friend Manufacturing Corp.
Gravely Corp.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Larson Machine, Inc.
Master Sprayers, Inc.
F. E. Myers & Bro. Co.
Oakes Mfg. Co., FMC Corp.
Practical Products Corp.
Spraying Systems Co.
Southern Mill Creek Products Co., Inc.
Wm. Steinen Mfg. Co.
Superior Chemical Products, Inc.
Walsh Manufacturing Co.

SPRAY PUMPS

Hypro, Inc.
Master Sprayers, Inc.

SPRAY RIG LINE MARKERS

The Broyhill Co.
Clark Mfg. Co.
Contree Sales, Inc.
Dempster Industries, Inc.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
H. D. Hudson Mfg. Co.
Larson Machine, Inc.
Rear's Mfg. Co.

SPRAYER, BIFLUID

John Bean Div., FMC Corp.
The Broyhill Co.
Buffalo Turbine Equipment Co.
Clark Mfg. Co.
Dobbins Div., Chamberlain Mfg. Corp.
Red Ewald, Inc.
Farmrite Sprayer, Inc.
Finn Equipment Co.
Great Lakes Chemical Div.
Minnesota Wanner Co.
Simplex Mfg. Co.
Sprayco Mfgs., Inc.
Stull Chemical Co.

SPRAYERS, BOOM

Ag-King (Div. of TAGS)
Ampulco (Hardie)
Amchem Products, Inc.
John Bacon Corp.
John Bean Div., FMC Corp.
John Blue Co., Inc.
The Broyhill Co.
Century Engineering Corp.
Clark Mfg. Co.
Contree Sales
Cushman Motors
Deere & Co.
DEFCO
Dempster Industries, Inc.
The J. J. Dill Co.
Dobbins Div., Chamberlain Mfg. Corp.
Red Ewald, Inc.
Farmrite Sprayer, Inc.
Friend Manufacturing Corp.
Gotcher Engineering & Mfg. Co.
Gravely Corp.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Growers Chemical Corp.
Hanson Equipment Co.
Heckendorn Mfg. Co., Inc.
Hub States Chemical & Equip. Corp.
H. D. Hudson Mfg. Co.
International Harvester Co.
Kromer Co.
Larson Machine, Inc.
Master Sprayers, Inc.
Mayrath Co.
F. E. Myers & Bro. Co.
Papec Machine Co.
Rear's Mfg. Co.
Rogers Mfg. Co., Inc.
Root-Lowell Corp.
Simplex Mfg. Co.
Southern Mill Creek Products Co., Inc.
Sprayco Mfgs., Inc.
Sun Industry, Inc.
Thuron Sprayer Mfg. Co.
Tryco Mfg. Co., Inc.
Walsh Manufacturing Co.
Waymark

SPRAYERS, CART OR WHEELBARROW TYPE

Ampulco (Hardie)
John Bean Div., FMC Corp.
The Broyhill Co.
Buffalo Turbine Ind. Equipment Co.
Champion Sprayer Co.
R. E. Chapin Mfg. Works, Inc.
Clark Mfg. Co.
Deere & Co.
The J. J. Dill Co.
Dobbins Div.
Red Ewald, Inc.
Farmrite Sprayer, Inc.
Friend Mfg. Co.
Great Lakes Chemical Div.
Hanson Equipment Co.
Hub States Chemical & Equip. Corp.
H. D. Hudson Mfg. Co.
Larson Machine, Inc.
F. E. Myers & Bro. Co.
Rear's Mfg. Co.
Root-Lowell Corp.
D. B. Smith & Co.
Southern Mill Creek Products

Co., Inc.
Sun Industry, Inc.
Tarrant Mfg. Co.
Thuron Sprayer Mfg. Co.
Universal Metal Products Div.

SPRAYERS, COMPLETE POWER UNIT

Ag-King (Div. of TAGS)
Ampulco (Hardie)
John Bacon Corp.
John Bean Div., FMC Corp.
Besler, Div. of C-C Industries
John Blue Co., Inc.
R. H. Bogle Co.
Bowie Industries, Inc.
The Broyhill Co.
Buffalo Turbine Ag. Equip. Co.
Century Engineering Corp.
Champion Sprayer Co.
R. E. Chapin Mfg. Works, Inc.
Clark Mfg. Co.
Cushman Motors
DEFCO
Deere & Co.
The J. J. Dill Co.
Dobbins Div.
Red Ewald, Inc.
Fargo Foundry Steel & Mfg. Co.
Farmrite Sprayer, Inc.
Friend Manufacturing Corp.
Gravely Corp.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hanson Equipment Co.
Hub States Chemical & Equip. Corp.
H. D. Hudson Mfg. Co.
Kromer Co.
Larson Machine, Inc.
Lockwood Corp.
Marlow Pumps Div.
Master Sprayers, Inc.
Minnesota Wanner Co.
F. E. Myers & Bro. Co.
Oakes Mfg. Co., FMC Corp.
Practical Products Corp.
Rear's Mfg. Co.
Rogers Mfg. Co., Inc.
Root-Lowell Corp.
Silver Creek Precision Corp.
Smithco, Inc.
Solo Motors, Inc.
Southern Mill Creek Products Co., Inc.
Sprayco Mfgs., Inc.
Stull Chemical Co.
Sun Industry, Inc.
Superior Chemical Products, Inc.
Tarrant Mfg. Co.
The Thompson Manufacturing Co.
Thuron Sprayer Mfg. Co.
Tryco Mfg. Co., Inc.
Universal Metal Products Div.
The Vandermolen Co.
Walsh Mfg. Co.
Waymark
West Chemical Products, Inc.

SPRAYERS, COMPRESSED AIR

John Bean Div., FMC Corp.
Blackwell Burner Co.
R. E. Chapin Mfg. Works, Inc.
Curtis-Dyna Products Corp.
DeVilbiss Co.
The J. J. Dill Co.
The C. B. Dolge Co.
Red Ewald, Inc.
Great Lakes Chemical Div.
H. D. Hudson Mfg. Co.
Larson Machine, Inc.
Oakes Mfg. Co., FMC Corp.
Parco Div., National Foam
Root-Lowell Corp.
D. B. Smith & Co.
Southern Mill Creek Products Co., Inc.
Superior Chemical Products, Inc.
Tryco Mfg. Co., Inc.
Universal Metal Products Div.
West Chemical Products, Inc.

SPRAYERS, HAND

Ag King (Div. of TAGS)
Ampulco (Hardie)
Bartlett Mfg. Co.
John Bean Div., FMC Corp.
Blackwell Burner Co.
Borden Chem., Smith-Douglass Div.
Broyhill Co.
Buffalo Turbine Ag. Equip. Co.
Century Engineering
Champion Sprayer Co.
R. E. Chapin Mfg. Works, Inc.
Contree Sales, Inc.
The J. J. Dill Co.
Deere & Co.
The C. B. Dolge Co.
Friend Mfg. Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hub States Chemical & Equip. Corp.
H. D. Hudson Mfg. Co.
Hydroponic Chemical Co., Inc.
Larson Machine, Inc.
Melnor Industries, Inc.
Oakes Mfg. Co., FMC Corp.
Parco Div., National Foam
Root-Lowell Corp.
Silver Creek Precision Corp.
D. B. Smith & Co.
Solo Motors, Inc.
Southern Mill Creek Products Co., Inc.
Superior Chemical Products, Inc.
The Thompson Manufacturing Co.
Tradewinds, Inc.
Tryco Mfg. Co., Inc.

MOVING?

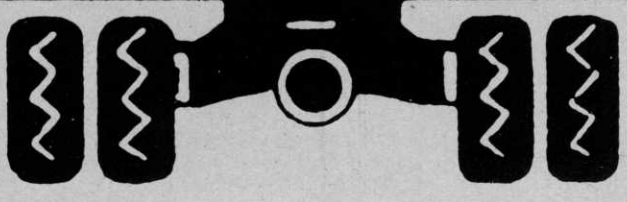
Changing Your Address?

If so, notify our circulation department right away to be certain the magazine reaches you at your new location. The Post Office won't forward your copies. So when you write us, make it at least three weeks in advance of your moving date, and include your old address, as well as the new one. We'll see you don't miss a single issue.

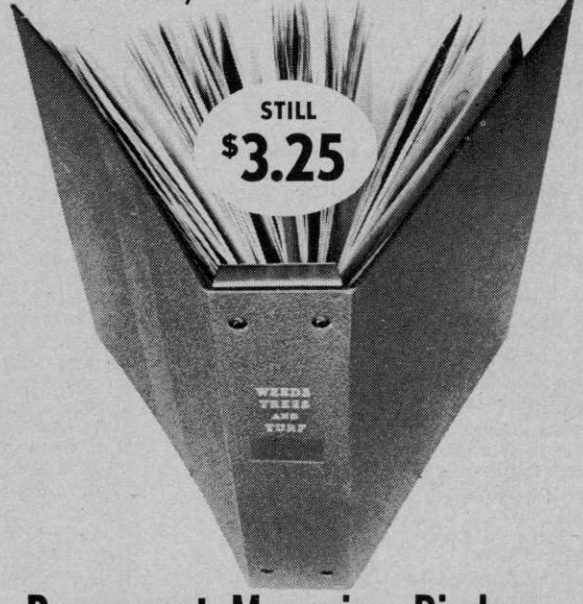
Send old and new address information to:

WEEDS TREES and TURF

Circulation Department
9800 Detroit Ave., Cleveland, Ohio 44102



Of Course, We Still Have Them!



Permanent Magazine Binders

Keep 12 issues of Weeds Trees and Turf in one neat package • Magazine can be easily inserted as it arrives. • Binder protects, gives bookshelf a neat appearance.

Send check or money order to:

WEEDS TREES and TURF
9800 Detroit Ave., Cleveland, Ohio 44102

Universal Metal Products Div.
The Vandemolen Co.
Walsh Manufacturing Co.
West Chemical Products, Inc.

SPRAYERS, HOSE END

W. D. Allen Mfg. Co.
Ampulco (Hardie)
John Bacon Corp.
Barco Mfg. Co., Inc.
John Bean Div., FMC Corp.
Borden Chem., Smith-Douglass Div.
Broyhill Co.
Century Engineering Corp.
R. E. Chapin Mfg. Works, Inc.
The J. J. Dill Co.
Friend Mfg. Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hayes Spray Gun Co.
Hub States Chemical & Equip. Corp.
H. D. Hudson Mfg. Co.
Hydroponic Chemical Co., Inc.
Larson Machine, Inc.
Master Sprayers, Inc.
Melnor Industries, Inc.
H. B. Sherman Mfg. Co.
Southern Mill Creek Products Co., Inc.
Superior Chemical Products, Inc.
Thuron Sprayer Mfg. Co.
Tryco Mfg. Co., Inc.
Universal Metal Products Div.
Walsh Mfg. Co.

SPRAYERS, KNAPSACK

Bartlett Mfg. Co.
John Bean Div., FMC Corp.
Buffalo Turbine Ag. Equip. Co.
Champion Sprayer Co.
R. E. Chapin Mfg. Works, Inc.
The J. J. Dill Co.
C. B. Dolge Co.
Friend Mfg. Co.
Great Lakes Chemical Div.
Green Lawn Laboratories, Inc.
Hanson Equipment Co.
Hub States Chemical & Equip. Corp.
H. D. Hudson Mfg. Co.
Ben Meadows Co.
Oakes Mfg. Co., FMC Corp.
Parco Products Co.
Root-Lowell Corp.
D. B. Smith & Co.
Solo Motors, Inc.
Southern Mill Creek Products Co., Inc.
Superior Chemical Products, Inc.
Tradewinds, Inc.
Universal Metal Products Div.
The Vanderomlen Co.

SPRAYERS, MOBILE TURF

Mallinckrodt Chemical Works

SPREADERS, DISC-TYPE

Amchem Products, Inc.
Borden Chem., Smith-Douglass Div.
Great Lakes Chemical Div.
Larson Machine, Inc.
Northrup, King & Co.
Southern Mill Creek Products Co., Inc.
Tarrant Mfg. Co.
Tyler Corp.
The Vandermolen Co.
Waymark

SPREADERS, HOPPER-TYPE

Avco Ezee Flow Div.
Borden Chem., Smith-Douglass Div.
Brettrager Manufacturing
Champion Sprayer Co.
The Cyclone Seeder Co., Inc.
Deere & Co.
Dempster Industries, Inc.
The J. J. Dill Co.
Edge-Rite Corp.
Fence Painter Corp.
Gandy Co.
Garber Seeders, Inc.
Gotcher Engineering & Mfg. Co.
Gravely Corp.
Great Lakes Chemical Div.
Herd Seeder Co. Inc.
Highway Equipment Co.
International Harvester Co.
F. D. Kees Mfg. Co.
Larson Machine, Inc.
Lely Corp.
Schneider Metal Mfg. Co.
O. M. Scott & Sons
Simplex Mfg. Co.
Southern Mill Creek Products Co., Inc.
Sunnyhill Research & Mfg. Co.
Tarrant Mfg. Co.
Tryco Mfg. Co., Inc.
Tyler Corp.
The Vandermolen Co.
Ventures Systems, Inc.

SPRIGGERS

Beck Manufacturing Co.
Bermuda King Co.
Bowie Machine Works
James-Way Equipment Co.
Thompson Equipment Co.
Wichita Equipment Co.

SPRINKLERS

F. D. Kees Mfg. Co.
King Brothers Ind.
Melnor Industries
Rain Jet Corp.
Sprinkler Irrigation Supply
Toro Mfg. Corp.

STONE PICKER

Armor Metal Products
McCabe-Powers Body Co.
Bridgeport Implement Works, Inc.
Lockwood Corp.
Rogers Mfg. Co., Inc.

STRAINERS, SUCTION

Bar-Way Mfg. Co.

STUMP CUTTERS

Arps Corp.
Brooks Prducts Div.
H & G Tool Co.
International Harvester Co.
Valmont Industries, Inc.
Vermeer Manufacturing Co.
Wayne Mfg. Co.

SWEEPERS

Beck Mfg. Co.
Billy Goat Industries, Inc.
J. I. Case Co.
Deere & Co.
Gravely Corp.
International Harvester Co.
Jacobsen Mfg. Co.
Jenkins Equipment Co.
Kromer Co.
Lindell Pattern Works
Mars Industries, Inc.
M-B Company
Melroe Mfg. Co.
Parker Sweeper Co.
Rental Equipment Mfg. Co.
Rogers Mfg. Co., Inc.
Turf Vac Corp.
Wayne Manufacturing Co.

TANKS, SPRAY

John Bacon Corp.
John Bean Div., FMC Corp.
Blackwell Burner Co.
The Broyhill Co.
Century Engineering Corp.
Clark Mfg. Co.
Contree Sales
The J. J. Dill Co.
Red Ewald, Inc.
Farmrite Sprayer, Inc.
Friend Manufacturing Corp.
Gotcher Engineering & Mfg. Co.
Green Lawn Laboratories, Inc.
Hanson Equipment Co.
Hart-Carter Co.
H. D. Hudson Mfg. Co.
Kromer Co.
Larson Machine, Inc.
F. E. Myers & Bro. Co.
Papec Machine Co.
Practical Products Corp.
Raven Ind. Inc.
Rear's Mfg. Co.
Simplex Mfg. Co.
Southern Mill Creek Products Co., Inc.
Sprayco Mfgs., Inc.
Superior Chemical Products, Inc.
Thuron Sprayer Mfg. Co.
Tryco Mfg. Co., Inc.
Universal Metal Products Div.
Walsh Manufacturing Co.

TILLERS

Allis-Chalmers Mfg. Co.
Ariens Co.
John Bean Div., FMC Corp.
Bolens Div., FMC Corp.
J. I. Case Co.
Contree Sales, Inc.
Deere & Co.
Engineering Products Co.
Ford Motor Co., Tractor Div.
Gravely Corp.
Howard Rotavator Co., Inc.
International Harvester Co., Inc.
Jacobsen Mfg. Co.
Lakes Supply Co., Inc.
Lely Corp.
Mitsubishi International Corp.
MTD Products, Inc.
Quick Manufacturing, Inc.
Oliver Corp.
Rogers Mfg. Co., Inc.
Roseman Mower Corp.
Side-Winder Plant, FMC Corp.
Simplicity Mfg. Co., Inc.
Solo Industries, Inc.
Wheel-Horse Products, Inc.
Yazoo Mfg. Co., Inc.
York Modern Corp.

TIRES, FLOTATION

Martin Tire & Supply Co.

TOP DRESSERS

Jabobsen Mfg. Co.
Lely Corp.
Ryan Equipment Co.
Sodmaster
Southern Mill Creek Products Co., Inc.

TRACTORS

Allis-Chalmers Mfg. Co.
Bolens Div., FMC Corp.
Bombardier, Ltd.
David Brown Tractors, Ltd.
J. I. Case Co.
Caterpillar Tractor Co.
Deere & Co.
Devere-Locke Div., Locke Mfg. Co.
Erickson Corp.
Engineering Products Co.
Ford Motor Co., Tractor Div.
Gravely Corp.
Homelite Div., Textron, Inc.
International Harvester Co.
Jacobsen Mfg. Co.
Locke Mfg. Cos., Inc.
Massey-Ferguson, Inc.
Meadow Bros. Nursery Supplies
Melroe Mfg. Co.
Mitsubishi International Corp.
MTD Products, Inc.
Oliver Corp.
Quick Manufacturing, Inc.
Simplicity Mfg. Co., Inc.
Slope Tractor, Inc.
Speedex Tractor Co.
Toro Manufacturing Corp.
Tradewinds, Inc.

Waldon, Inc.
Wheel-Horse Products, Inc.

TRAILERS

Allis-Chalmers,
The Champion Co.
Miller Tilt-Top Trailers, Inc.
Rogers Mfg. Co., Inc.
Stone Fabricators, Inc.
Trailevator Div., Magline, Inc.

TREE INJECTORS

C.L.M. National
Cranco Co.
Creative Sales
Panama Pump Co.
Tree-Ject Co.

TREE MOVERS

Beseler Equip. Co.
Davey Tree Expert Co.
Ideal Crane Div.
International Harvester Co.
Vermeer Manufacturing Co.

TREE SLINGS

Beseler Equip. Co.

TREE TIES

Dairymens Fertilizer Co-op, Inc.
Fertilla Co.

TREE WRAPPINGS

Bemis Mfg. Co.
American Excelsior Corp.
John Bacon Corp.
Bartlett Mfg. Co.

TRENCHER

Arps Corp.
Ditch Witch Trenchers
Olmsteel Products, Inc.
Vermeer Mfg. Co.

TRIMMING (EDGING) TOOLS

Allegretti & Co.
Bartlett Mfg. Co.
The Black & Decker Mfg. Co.
Bunton Co.
L. M. Cox Mfg. Co., Inc.
Edge-Rite Corp.
Gale Products
Gandy Company
Goodall Div.
John H. Graham & Co., Inc.
Jacobsen Mfg. Co.
K-D Mfg. Co.
Lindell Pattern Works
Melnor Industries, Inc.
Orline Products Div.
Rowco Mfg. Co., Inc.
Seymour Smith & Son, Inc.
Sodmaster
Tallman Equip. Co. Inc.
Thor Power Tool Co.
Yazoo Mfg. Co., Inc.

TRUCKS, ELECTRIC

Meadows Bros. Nursery Supplies

UNDERWATER WEED HARVESTER

Aquanautics, Inc.
Aquatic Controls Corp.
The Vandermolen Co.

UNDERWATER WEED RAKE

Aquanautics, Inc.
Aquatic Controls Corp.

UTILITY TRAILERS

Beck Mfg. Co.
Miller Tilt-Top Trailers, Inc.

UTILITY VEHICLES

Allis-Chalmers Mfg. Co.
Aquanautics, Inc.
Bombardier, Ltd.
Cushman Motors
Deere & Co.
Gravely Tractors
W. J. Heinrich Products
International Harvester Co.
Jacobsen Mfg. Co.
Otis Materials Handling
Rogers Mfg. Co., Inc.
Sweepster, Inc.
Tryco Mfg. Co., Inc.
Walker Mfg. Co.
West Point Products Corp.

VACUUMS

Allis-Chalmers Mfg. Co.
American-Lincoln Div.
Ariens Co.
Billy Goat Industries, Inc.
The Black & Decker Mfg. Co.
Deere & Co.
Kromer Co.
Parker Sweeper Co.
Scott Aviation Corp.
Simplicity Mfg. Co., Inc.
Southern Mill Creek Products Co., Inc.
Tarrant Mfg. Co.
Turf Vac Corp.

VERTICAL SLITTERS, TURF

Rental Equipment Mfg. Co.
Rogers Mfg. Co.
Ryan Equipment Co.

VIBRATORY PLOWS

Ditch Witch Trenchers

WASHERS

Century Engineering Corp.
Fimco, Inc.
Walsh Mfg. Co.

WINCH (HOIST)

Fairmont Hydraulics
Halline Utility Equipment Co.
Hoffco, Inc.
Ideal Crane Div.
International Harvester Co.
Brillion, Wis. 54110
Servis Equip. Co.

SERVICES

Asplundh Tree Expert Co.
Davey Tree Expert Co.
Golf Course Builders of America
World Wide Golf Enterprises, Inc.

ALPHABETICAL LISTING OF SUPPLIERS

WEEDS TREES and TURF Advertisers Listed in Boldface Type

A

Ace Pump Corp.
1650 Channel Ave., Memphis, Tenn.
Aceto Chemical Co., Inc.
126-02 Northern Blvd.
Flushing, N.Y. 11368

TREES "IRON-SICK"?

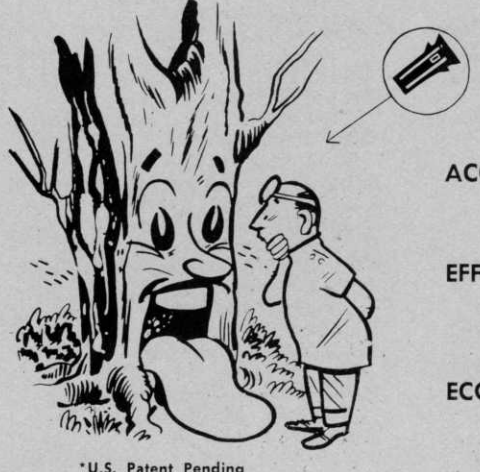
TREE SYSTEMS *

MEDICAPS

Worth Over 400 Times Their Weight in Iron

New!!

Medicaps Trunk Injection For Fast Easy Chlorosis Remedy



*U.S. Patent Pending

ACCURATE—Premeasured, self-contained MEDICAPS "cartridges."

EFFECTIVE—Trees respond to MEDICAPS treatment in as little as 14 days. Tested by leading Universities.

ECONOMICAL—More efficient than soil or foliage applications. MEDICAPS efficiency means low cost with lasting results.

Write today for additional information on MEDICAPS, and the name of your nearby MEDICAPS distributor.

Creative Sales, Inc.

200 South Main Fremont, Nebraska 68025

Ackley Mfg. Co.
13770 S.E. Ambler Rd.,
Clackamus, Ore. 97015

Acme Protection Equipment Corp.
1210 Kalamazoo St.,
South Haven, Mich. 49090

Adamson Sprinkler Co.,
2229 Barry Ave.,
West Los Angeles, Calif.

The John B. Adt Co., 110 W.
Timonium Rd., Timonium, Md.

Aero Commander Div.,
North American Rockwell,
Bethany, Okla. 73008

Ag-King (Div. of TAGS)
Box 7, Preston, Md. 21655

Agrico Chemical Co.,
Div. of Continental Oil Co.,
Liebig Lane, Carteret, N.J. 07008

Agiform International Chemicals, Inc.
P.O. Box 323, Newark, Calif. 94560

AgTronics Mfg. Co.
P.O. Box 1248,
Barstow, Calif. 92311

Air-Lec Industries, Inc.
Outdoor Products Div.,
3306 Commercial Ave.,
Madison, Wis. 53714

Allegretti & Co., 9200 Mason Ave.,
Chatsworth, Calif. 91311

W. D. Allen Mfg. Co.,
2200 W. 16th St., Broadview, Ill.

Allied Biological Control Corp.,
194 Worcester St., Wellesley Hills,
Mass. 02181

Allied Chemical Corp.,
40 Rector St., New York, N. Y.
10006

Allis-Chalmers Mfg. Co.
Box 512, Milwaukee, Wis.

Amchem Products, Inc., Ambler, Pa.
19002

American Bioculture, Inc.
720 Bryant Ave.,
Roslyn Harbor, L.I., N.Y. 11576

American Cyanamid Co., Ag. Div.
P.O. Box 400, Princeton, N.J.

American Excelsior Corp.
850 Ave., H East,
Arlington, Tex. 76010

American-Lincon Corp.
518 S. St. Clair St., Toledo, Ohio

American Oil Co.,
910 S. Michigan Ave., Chicago, Ill.

American Optical Co., 14 Mechanic
St., Southbridge, Mass. 01550.

American Potash & Chemical Corp.
3000 W. 6th St., Los Angeles, Calif.

American Talc Co., Chatsworth, Ga.

American Vermiculite Corp.,
527 Madison Ave., New York, N. Y.

Ampulco (Hardie)
4200 Wissahickon Ave.,
Philadelphia, Pa. 19129

The Ansul Co., 1 Stanton St.
Marinette, Wis. 54143

Applied Biochemists, Inc.
P.O. Box 25, Mequon, Wis. 53092

Aquamarine Corp., Box 616
Waukesha, Wis. 53186

Aquanautics, Inc., 1246 Birchwood
Dr., Sunnyvale, Calif. 94086

Aquatic Controls Corp., 1203 E. Main,
Waukesha, Wis. 53186.

Aquatrols Corp. of America, P.O.
Box 385, Delair, N.J. 08110

Ariens Co., 655 W. Ryan, Brillion,
Wis. 54110

Arlo Industries, Inc.
Bear Mt. Parkway at Arlo Lane,
Peekskill, N.Y. 10566

Armor Metal Products, Box 822
Helena, Mont. 59601

Armour Agricultural Chemical Co.,
P.O. Box 1685, Atlanta, Ga. 30301

Armour Industrial Chemicals Co.,
Box 1805, Chicago, Ill. 60690

Arps Corp., 1711 Wisconsin Ave.
New Holstein, Wis. 53061

Asgrow Seed Co.,
P.O. Box 70, Northvale, N.J.

Asplundh Chipper Co.
Hamilton St., Chalfont, Pa.

Asplundh Tree Expert Co.
505 York Rd.,
Jenkintown, Pa. 19046

Atlas Chemical Industries, Inc.,
Wilmington, Del.

Aurora Pump Div.,
New York Air Brake Co.,
Loucks at Dearborn, Aurora, Ill.

Avco Ezee Flow Div.,
420 S. First St.
Coldwater, Ohio 45828

A. V. Electronics, Inc.,
240 S. Tellman,
Fresno, Calif. 93706

B

Bachtold Bros., Inc., Forrest, Ill.

John Bacon Corp.,
State St., Gasport, N.Y. 14067

B.A.G. Corp.
9443 Sherwood Glen
Dallas, Tex. 75228

Baker Equipment Engineering Co.,
Box 25609, Richmond, Va. 23260

Barco Mfg. Co., Inc.,
7 Jackson St.,
Worcester, Mass. 01608

Bartlett Mfg. Co., 3003 E. Grand
Blvd., Detroit, Mich. 48202

Bar-Way Mfg. Co.
P.O. Box 640,
Stamford, Conn. 06904

W. M. Bashlin Co., 119 W. Pine St.,
Grove City, Pa. 16127

John Bean Div., FMC Corp.
1305 S. Cedar St.,
Lansing, Mich. 48910

John Bean Div., FMC Corp., P.O.
Box 145, San Jose, Calif. 95103

John Bean Div., FMC Corp.
516 Dearborn, Tipton, Ind. 46072

Beck Manufacturing Co., Box 752,
Auburn, Ala. 36830

Bell Helicopter Co.,
P.O. Box 482, Fort Worth, Texas

Bemis Co., Inc., 800 North Star
Center, Box 178, Minneapolis,
Minn. 55402

Bermuda King Co.
Okarche, Okla. 73762

Beseler Equip. Co.
5417 Oaklawn Ave. S.
Minneapolis, Minn. 55424

Besler, A Div. of C-C Industries,
4053 Harlan St., Emeryville, Calif.

Best Fertilizers Co.,
1459 3rd St., Oakland, Calif.

Big J Products, Inc.
Rt. 1, Hanna, Ind. 46340

Billy Goat Industries Inc.,
P.O. Box 229
Grandview, Mo. 64030

Bioferm Corp., Wasco, Calif.

The Black & Decker Mfg. Co.,
701 E. Joppa Rd.,
Towson, Md. 21204

Blackwell Burner Co.
5033 W. Commerce,
San Antonio, Tex. 78237

E. W. Bliss Co., 80 Second, S.,
Portland, Maine 04106

John Blue Co., Inc.,
P.O. Box 1607, Huntsville, Ala.

BMB Co., Inc.,
Box 350, Holton, Kans.

The R. H. Bogle Co., P.O. Box 588,
Alexandria, Va. 22313

Bolens Div., FMC Corp., 215 S. Park
St., Port Washington, Wis. 53074

Bombardier Ltd.,
Valcourt, P.Q., Canada

Bonide Chemical Co., Inc.,
382 N. Genesee St., Utica, N. Y.

Borden Chem., Smith-Douglas Div.,
P. O. Box 419, Norfolk, Va. 23501

Bowie Industries, Inc.,
P.O. Box 931, Bowie, Tex. 76230

Boyle-Midway Div.,
American Home Products,
685 Third Ave.,
New York, N. Y. 10017

Brettrager Manufacturing,
5410 East St., Saginaw, Mich.

Bridgeport Implement Works, Inc.,
P.O. Box 491, Stratford, Conn.
06497

Brillion Iron Works, Inc., 200 Park
Ave., Brillion, Wis. 54110

Brooks Products Div., The Tool Steel
Gear & Pinion Co., 211 Township
Ave., Cincinnati, Ohio

David Brown Tractor, Ltd.
Meltham, Huddersfield, England
HD7, 3AR

The Broyhill Co.,
Dakota City, Nebraska 68731

Buckner Industries, Inc.
P.O. Box 232, Fresno, Calif.

Buffalo Turbine Agricultural Equip. Co., Inc., Industrial St., Gowanda, N.Y.

Bunton Co., 4303 Poplar Level Rd.,
Louisville, Ky. 40213

Burton Supply Co., Inc.,
1301 Logan Ave., Youngstown,
Ohio

C

Samuel Cabot, Inc., One Union St.,
Boston Mass. 02208

E. L. Caldwell & Sons, Inc., P.O. Box
9316, Corpus Christi, Tex. 78408

Cal-Turf, 5417 Santa Clara,
Camarillo, Calif. 93010

Canlin Sales Co., P.O. Box 489,
Somerville, N.J. 08876

J. I. Case Co.,
700 State St., Racine, Wis. 53404

J. I. Case Co., Outdoor Power
Equipment Div., P.O. Box K,
Winneconne, Wis. 54986

Caterpillar Tractor Co.,
Peoria, Ill.

Century Engineering Corp., 221-4th
Ave., S.E., Cedar Rapids, Iowa
52401

Certain-teed Products Corp.,
540 Pennsylvania Ave.,
Ft. Washington, Pa. 19034

Central Solvents & Chemicals Co.,
2540 W. Flournoy St., Chicago, Ill.

Cessna Aircraft Co., Wichita, Kans.

The Champion Co.,
400 Harrison St.,
Springfield, Ohio 45501

Champion Sprayer Co., 6509
Heintz Ave., Detroit, Mich.

Chanderlin Seed Co., Chimney Rock
Rd., Bound Brook, N.J.

R. E. Chapin Mfg. Works, Inc., 29
Liberty St., Batavia, N.Y. 14020

Chapman Chemical Co., 416 Brooks
Rd., Memphis, Tenn. 38109

Charles Machine Works, Inc.
100 Asn St., Perry, Okla. 73077

Charleston Rubber Co., 321 Stark
Industrial Pk., Charleston, S.C.

Chemagro Div., Baychem Corp.
P.O. Box 4913, Hawthorn Rd.,
Kansas City, Mo. 64120

Chemley Products Co., 5744
N. Western Ave., Chicago, Ill.

Chevron Chemical Co., Ortho Div.
P.O. Box 743 ,
LaHabra, Calif. 90631

Chipman Div., Rhodia Inc., Box 2009,
New Brunswick, N.J. 08903

Clark Mfg. Co.,
Rt. 1, Independence,
Atherton, Mo. 64050

Clark Equipment Co., Buchanan
Plant, Buchanan, Mich. 49107

W. A. Cleary Corp., Box 749,

New Brunswick, N.J. 08903
C.L.M. National, P.O. Box 389, Sedalia, Mo. 65301
Cloro-Spray Corp., 2215-25 N. American St., Phila., Pa.
The Cole Nursery Co., Rd. 1, Circleville, Ohio 43113
Collins Associates, Inc., 3318 Glenmore Ave., Cincinnati, O. 45211
Colloidal Products Corp., P.O. Box 621, Petaluma, Calif. 94952
Columbia Nitrogen Corp., P.O. Box 1483, Augusta, Ga.
Commercial Solvents Corp., 260 Madison Ave., New York, N.Y.
Contree Sales, P.O. Box 129, Columbus, Wis. 53925
Conwed Corp., 332 Minnesota St., St. Paul, Minn. 55101
L. M. Cox Manufacturing, Inc., P.O. Box 476, Santa Ana, Calif. 92702
Cranco Co., 7 Clermont Ave., Trenton, N.J.
C & R Products, 5405 N.E. 91 Ave., Portland, Ore. 97220
N. 21st St., Lincoln, Nebr. 68501
Creative Sales, Inc., 200 S. Main, Fremont, Nebr. 68025
Crown Chemicals, 3940 Pafk Ave., St. Louis, Mo. 63110
Curtis Dyna Products Corp., Box 297, Westfield, Ind 46074
Cushman Motors, Box 82409, Lincoln, Nebr.
Custom Spray Equipment Corp. R.D. #2, Binghamton, N.Y.
The Cyclone Seeder Co., Inc., Box 68, Urbana, Ind. 46990

D

Dairymens Fertilizer Co-op, Inc., P.O. Box 998, Artesia, Calif.
Ross Daniels, Inc., 1720 Fuller Road, West Des Moines, Iowa 50265
Danuser Machine Works, 1500 Industrial Blvd., Claremore, Okla.
Davey Tree Expert Co. Kent, Ohio 44240
Davison Chemical Div., W. R. Grace & Co., 101 N. Charles St., Baltimore, Md.
Daymon Manufacturing Corp., 7450 Weller Rd., Gregory, Mich. 48137
Deere & Co., John Deere Equipment, John Deere Administrative Center, John Deere Rd., Moline, Ill. 61265
DEFCO, P.O. Box 1209, Decatur, Ala. 35601
Delavan Manufacturing Co., 811-4th St., W. Des Moines, Iowa 50265
Dempster Industries, Inc., P.O. Box 848, Beatrice, Nebr. 68310
DESA Industries, 25000 Western Ave., Park Forest, Ill. 60466
DeVilbiss Co., 300 Phillips Ave., Toledo, Ohio
Diamond Shamrock Co., 300 Union Commerce Bldg., Cleveland, Ohio 44115
Dico Side-O-Matic, P.O. Box 429, York, Pa. 17405
The J. J. Dill Co., P.O. Box 788, Kalamazoo, Mich. 49005
J. T. Dimmick Forest Co., Box 308, Garberville, Calif. 95440
Ditch Witch Trenchers, P.O. Box 66, Perry, Okla. 73077
Dobbins Div., Chamberlain Mfg. Corp., Box 610, Monroe, Ga. 30655
The C. B. Dolge Co., Ferry Lane, Westport, Conn.
The Dow Chemical Co., P.O. Box 1706 Midland, Mich. 48640
DriAll Driers, Inc., Attica, Ind. 47918
E. I. duPont de Nemours & Co., Inc., Industrial & Biochemical Div., 1007 Market St., Wilmington, Del. 19898

E

Eagle-Picher Industries, Inc., 900 American Bldg., Cincinnati, O. 45201
Eastman Chemical Products, Inc., P.O. Box 431, Kingsport, Tenn. 37622
Edge-Rite Corp., 1808 Coggin, Brownwood, Tex. 76801
Elanco Products Co., 740 S. Alabama St., P.O. Box 1968, Indianapolis, Ind. 46205
Emery Industries, Inc., Organic Chemicals Div., 8733 S. Dice Rd., Santa Fe Springs, Calif.
Engelhard Minerals & Chemicals, Essex Turnpike, Menlo Park, Edison, N.J. 08817
Engineering Products Co., P.O. Box 284, Waukesha, Wis. 53186
ENRESCO, Inc., P.O. Box 1652, Colorado Springs, Colo. 80901
Erickson Corp., 211 Anthony Blvd., Minneapolis, Minn. 55418
Eversman Mfg. Co., Curtis at Fifth St., Denver, Colo. 80204
Red Ewald, Inc., P.O. Box 1167, Karnes City, Tex. 78118
Excel Industries, Inc., Box 385, Hesston, Kan. 67602

F

Faesy & Besthoff, Inc., 143 River Rd., Edgewater, N.J.
Fairmont Hydraulics, Div. of Fairmont Railway Motors, Inc., 415 N. Main St., Fairmont, Minn. 56031
The Fanno Saw Works, P.O. Box 628, Chico, Calif. 95926.
Fargo Foundry Steel & Mfg. Co., 92 N.P. Ave., Fargo, N. Dakota
Farmrite Sprayer, Inc., 644 E. Lake St., Lake Mills, Wis. 53551
Farris Chemical Co., 7213 Kingston Pike, Knoxville, Tenn.
Febco, Inc., 9121 Glenoaks Blvd., Sun Valley, Calif. 91352
Fence Painter Corp., 4335 S. Tripp Ave., Chicago, Ill. 60632
Ferry-Morse Seed Co., P.O. Box 100, Mountain View, Calif. 94040
Ferguson Fumigants, Inc., 93 Ford Lane, Hazlewood, Mo. 63042
Fimco, Inc. 1st and Court Sts., Sioux City, Ia. 51101
Fertilla Co., P.O. Box 998, Cerritos, Calif. 90701
Finland Turf Cut Div., Finneyfrock's 1805 Ga Ave., Olney, Md. 20832
Finn Equipment Co., 2525 Duck Creek Rd., Cincinnati, Ohio
Floridin Co., 3 Penn Center, Pittsburgh, Pa. 15235
Foley Mfg. Co., 3300 Fifth St., N.E., Minneapolis, Minn. 55418
Ford Motor Co., Tractor & Implement Div., 2500 E. Maple, Birmingham, Mich. 48012
Fox Valley Marking Supplies, 4 N 671, Route 59, Bartlett, Ill. 60103
Friend Manufacturing Corp., Prospect St., Gasport, N.Y. 14067
Fuerst Brothers, Rhinebeck, N.Y. 12572

G

Gabriel Chemicals, Ltd., 60 E. 42 St., New York, N.Y. 10017
Gale Products, Monmouth Blvd., Galesburg, Ill. 61401
Gandy Co., 10 Gandrud Rd., Owatonna, Minn. 55060

1270

- EXCLUSIVE SPRING-ACTIVATED FEED PLATE eliminates need for flywheel; assures faster, quieter operation. Automatically takes larger size wood without adjustment, extra power, or extra fuel.
- FOUR MODELS with wood capacity from 4½" to 7" dia.; a variety of power units.
- EMERGENCY SAFETY STOP SWITCHES at top and bottom of feed apron.
- PATENTED TWO-WAY DELIVERY CHUTE for side or front chip flow (optional).

Ask for a demonstration to see the BIG DIFFERENCE in brush chippers!

FITCHBURG CHIPPER

M-B COMPANY

Dept. WTT-12 • NEW HOLSTEIN, WIS. 53061

The Royal Line of Governmental Equipment Since 1907

For More Details Circle (115) on Reply Card

Garber Seeders, Inc.
St. Paris, Ohio

Geigy Agricultural Chemicals Div., Ciba-Geigy Corp., Mill River Rd., Ardsley, N.Y. 10502

General Aniline & Film Corp., 140 W. 51 St., New York, N.Y.

G & H Products, Inc., St. Paris, Ohio

Gieringer Mfg. Co., 6508 N. Sunny Point Rd., Milwaukee, Wis. 53217

Glendale Optical Co., Inc., 130 Crossways Park Dr., Woodbury, L.I., N.Y. 11797

Goodall Div., Bunton Co., 4303 Poplar Level Rd., Louisville, Ky. 40213

Golf Course Builders of America 632 Shoreham Bld., Washington, D.C. 20006

Gordon Corp., 300 South 3rd St., Kansas City, Kan. 66118

Gotcher Engineering & Mfg. Co., P.O. Box 721, Clarksdale, Miss.

W. R. Grace & Co., Agri. Chem. Group, 7 Hanover Sq., New York, N. Y. 10005

John H. Graham & Co., Inc., 105 Duane St., New York, N.Y.

Grass Growers Inc., P.O. Box 584, Plainfield, N.J. 07061

Gravely Corp., 1 Gravely Lane, Clemons, N.C. 27012

Great Lakes Chemical Corp., P.O. Box 2200, West Lafayette, Ind. 47906

Green Lawn Laboratories, Inc., 4844 Main St., Skokie, Ill.

Greenlife Products Co., Inc. West Point. Va. 23181

The Gregg Co., P.O. Box 149, Riverton, N.J.

Growers Chemical Corp., Milan, Ohio 44846

Grumman Aircraft Corp., S. Oyster Bay Rd., Bethpage, L.I., N.Y.

Gulf Oil Co., Gulf Bldg., Pittsburgh, Pa.

Gyrodyne Co. of America, Flowerfield Rd., St. James, L.I., N.Y.

Independence, Mo. 64051

H

Hadfield Sod Roller Co., 6443 Sherwood, Oxford, Mich. 48051

Hahn, Inc.—West Point Div., 1625 N. Garvin St. Evansville, Ind. 47717

Halline Utility Equipment Co., 5525 S.E. 28th St., Portland, Oreg.

Clifford B. Hannay & Son, Inc., 422 Main St., Westerlo, N.Y. 12193

Hanson Equipment Co., 301 Charles St., S. Beloit, Ill. 61080

Harder Arborist Supply Co., Box 111, Hempstead, N.Y. 11550

Hart-Carter Co. 1209 W. Pioneer Pky., Peoria, Ill. 61614

Hayes Spray Gun Co., 98 N. San Gabriel Blvd., Pasadena, Calif.

Heckendorn Mfg. Co., Inc., P.O. Box 38, Cedar Point. Kans.

W. J. Heinrich Products, 21013 E. Dinuba, Reedley, Calif. 93654

HEMCO Corp., P.O. Box 210,

Henderson Mfg. Co., P.O. Box 355, Fisher, Ill.

Hercules Incorporated, 910 Market St., Wilmington, Del. 19801

Herd Seeder Co., Inc., P.O. Box 448 Logansport, Ind. 46047

H & G Tool Co., 22474 Sherwood, Warren, Mich.

Hiab Hydraulics, Inc., 3410 Lancaster Pike, Wilmington, Del. 19805

Highway Equipment Co., 616 D. Ave., N.W., Cedar Rapids, Ia. 52405

Hiller Aircraft Corp., 1350 Willow Rd., Palo Alto, Calif.

Hoffco, Inc., 25 Washington Ave., Richmond, Ind., 47374

Homelite Div., Textron, Inc., Riverdale Ave., Port Chester, N.Y. 10573

Hooker Chemical Corp., 65 Iroquois St., Niagara Falls, N.Y. 14302

Houston Chemical Corp., 200 Madison Ave., New York, N.Y.

Howard Metalcraft Co., 6th & Minor Sts., Emmaus, Pa. 18049

Howard Rotavator Co., Inc., P.O. Box 100, Harvard, Ill. 60033

H. D. Hudson Mfg. Co., 154 E. Erie St., Chicago, Ill. 60611

Hub States Chemical and Equipment, 2002 No. Illinois St., Indianapolis, Ind. 46202

Hughes-Keenan Skyworker, Div. of Transairco, Inc., P.O. Box B, Delaware, Ohio 43015

Humble Oil & Refining Co., Houston, Texas

Hunt-Pierce Corp., 230 Old Gate Rd., Milford, Conn.

Hydraulic Products Co., Inc., 501 East 42nd St., Lubbock, Tex. 79404

Hydroponic Chemical Co., Inc., 3489 Sawmill Rd., Copley, Ohio 44321

Hypro, Inc., 375 Fifth Ave., N.W., New Brighton, St. Paul, Minn. 55112

I

Ideal Crane Div., Bert Parkhurst & Co., 15051 E. Admiral Pl., Tulsa, Okla. 74116

Imco, Inc., P.O. Box 547, Afton, Wyo.

Inject-O-Meter Co., Inc., Box 1044, Clovis, N. M. 88101

International Minerals & Chem. Corp., Old Orchard Rd. Skokie, Ill.

International Minerals & Chem. Corp., Old Orchard Rd., Skokie, Ill.

International Paper Co., Special Products Dept., 220 E. 42nd St., New York, N.Y.

International Plastics, Inc., Box 278, Colwich, Kansas 67030

Irrigation Accessories Co., P.O. Box 11214, Portland, Oreg. 97211

Itasca Products, Minot, N. Dak. 58701, Blanchard, La. 71009

J

Jacklin Seed Co., Inc., Dishman, Wash. 99213

Jacobsen Mfg. Co., 1721 Packard Ave., Racine, Wis. 53403

James-Way Equipment Co., P.O. Box 1349, Wichita Falls, Tex. 76307

Jari Corp., P.O. Box 2075 Mankato, Minn. 56001

Jenkins Equipment Co., 2810 Baker Rd., Dexter, Mich. 48130

Johns-Manville Corp., 22 E. 40th St., New York, N.Y. 10016

Johnson Hydraulic Equip .Co., 215 W. 78th St. Minneapolis, Minn. 55420

Johnson's Industrial Supply Co., 1941 Karlin Dr., St. Louis, Mo. 63131

K

Kalium Chemicals, Ltd., 200 Park Ave., New York, N.Y.

K-D Mfg. Co., P.O. Box 4547, Waco, Tex. 76705

KDM Co., P.O. Box 6814, San Antonio, Tex.,

F. D. Kees Mfg. Co. P.O. Box 8, Beatrice, Nebr. 68310

Kel Instruments Co., Inc., P.O. Box 466, New Brunswick, N.J.

Kem Mfg. Co., Tucker, Ga.

Kemp Mfg. Co., 1027 E. 20th St., Erie, Pa.

Kin-Co, 2356 Hempden Ave., St. Paul, Minn. 55114

King Brothers, Ind., 9245 Noble Ave., Sepulveda, Calif.

Koyker Manufacturing Co., Box 898, Sioux Falls, S.D. 57101

Karl Kummerling, Inc., 4536 Lincoln Way, East Massillon, Ohio 44646

Knaack Mfg. Co., 420 E. Terra Cotta Ave., Crystal Lake, Ill. 60014

Knowles Tree Service, 1081 Burkhart Ave., San Leandro, Calif. 94579

Kromer Company, Mound, Minn. 55364

L

Lakeshore Equipment & Supply Co., 10237 Berea Rd., Cleveland, O. 44102

Lakes Supply Co., Inc., P.O. Box 101, Dundee, Ill. 60118

LaMotte Chemical Products Co., Chestertown, Md.

Larson Machine, Inc., 1017 N. Santa Fe St., Princeville, Ill. 61559

The Larutan Corp., 1440 S. Allec St., Anaheim, Calif. 92805

Lawnhouse Products, Inc., 1518 E. North Ave., Milwaukee, Wis. 53201

Lely Corp., 503 S. Lodge St., Wilson, N. Car. 27893

Lethelin Products Co., Inc., 15 MacQuesten Parkway S., Mt. Vernon, N.Y. 10550

Limb-Lopper Co., Inc., 11845 E. Burke St., Santa Fe Springs, Calif. 90670

O. E. Linck Div., Walco-Linck Corp., 1234 State Highway 46, Clifton, N.J.

Lindell Pattern Works, 2689 South Tenth, Fresno, Calif. 93725

Lindig Manufacturing, Inc., 1875 W. County Rd. "C," St. Paul, Minn. 55113

Loamite Corp., P.O. Box 548, Santa Rosa, Calif. 95402

Lobel Chemical Corp., 100 Church St., New York, N.Y. 10007

Locke Manufacturing Companies, Inc., 1085 Connecticut Ave., Bridgeport, Conn.

Lockwood Corp., Box 160, Gering, Nebr. 69341

London Fog Co., Crystal Bay, Wis., 55323

Lupton Tree Service, Tiffin, Ohio 44883

M

Mallinckrodt Chemical Works, 3600 N. Second St., St. Louis, Mo. 63160

Maple Leaf Mills, Ltd., Oakwood, Ontario, Canada

Marlow Pumps Div., ITT Bell & Gossett, Inc., P.O. Box 200, Midland Park, N.J. 07432

Mars Industries, Inc., 5209 W. Broadway, Minneapolis, Minn. 55429

Martin Tire & Supply Inc., 154 N. Emporia, Wichita, Kans. 67202

Martindale Electric Co., 1375 Hird Ave., Cleveland, O. 44107

Massey-Ferguson, Inc., 1901 Bell Ave., Des Moines, Iowa

Master Sprayers, Inc., 1511 West 2nd St., Pomona, Calif. 91766

Mayrath Co., Compton, Ill. 61318

M-B Company, New Holstein, Wis. 53160

McCabe-Powers Body Co., 8900 Frost

Ave., St. Louis, Mo. 63134
McCulloch Corp., 6101 W. Century Blvd., Los Angeles, Calif.
McGovern Sod Farms, Inc., 105 Pinelawn Rd., Melville, L.I., N.Y.
McLaughlin Gormley King Co., 1715 5th St., S.E., Minneapolis, Minn.
Meadow Bros. Nursery Supplies, P.O. Box 277B, Altadena, Calif. 91001
The Ben Meadows Co., 533 Amsterdam Ave., Atlanta, Ga.
Melnor Industries, Inc. 1 Carol Place, Moonachie, N.J.
Melroe Mfg. Co., Gwinner, N. Dak.
Merck Chemical Div., Merck & Co., Rahway, N.J. 07065
Mercury Clutch Div., Aspro, Inc., 1201 Camden Ave., Canton, Ohio 44706
Merion Blue Grass Association, 101 Park Ave., New York, N.Y. 10017
Metasol Products, Merck & Co., 200 Wagaraw Rd., Hawthorne, N.J.
Michigan Chemical Corp., 351 E. Ohio St., Chicago, Ill. 60611
Michlin Chemical Corp., 9045 Vincent, Detroit, Mich. 48211
Midland Products Co., 787 Susquehanna Ave., Franklin Lakes, N.J. 07417
Miller Chemical & Fertilizer Corp., 3006 W. Cold Spring Lane, Baltimore, Md. 21215
Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles, Calif.
Miller Tilt-Top Trailer, Inc., 460 S. 92nd St. Milwaukee, Wis. 53214
Milwaukee Sewerage Commission, P.O. Box 2079, Milwaukee, Wis. 53201
Mine Safety Appliances Co., 201 N. Braddock Ave., Pittsburgh, Pa. 15208
Minnesota Wanner Co., 5145 Eden Ave. S., Minneapolis, Minn. 55436
MinnTurf Equipment Designs Corp., Suite 204, 7100 France Ave. South, Edina, Minn. 55435
Mitsubishi International Corp., 1927 S. Van Ness Ave., Fresno, Calif. 93721
Mitts & Merrill, Inc., 109 McCoskry St., Saginaw, Mich. 48601
Mobile Aerial Towers, Inc., 2314 Bowser Ave., Ft. Wayne, Ind. 46803
Mobil Chemical Co., Industrial Chemicals Div., 401 East Main St., Richmond, Va. 23208
Morbark Industries, Inc., Box 1000, Winn, Mich. 48896
Mock Seed Co., 13th & Smallman, Pittsburgh, Pa.
Monarch Mfg. Works, Inc., 2501 E. Ontario St., Philadelphia, Pa. 19134
Monsanto Co., 800 N. Lindbergh Bldg., St. Louis, Mo. 63166
Montrose Chemical Co., 104-12 Lister Ave., Newark, N.J.
Samuel Moore & Co., Mantua, Ohio 44255
Motorola Communications & Elec.,
Marine Bio-Chemists, Inc., P.O. Box 91900, Milwaukee, Wis. 53202
Mallinckrodt Chemical Works, 3600 N. Second St., St. Louis, Mo. 63160
Inc., 1301 Algonquin Rd., Schaumburg, Ill. 60172
Mott Corp., 500 Shawmut Ave., LaGrange, Ill. 60525
MTD Products, Inc., 5389 W. 130th St., Cleveland, O. 44111
MudCat, 5501 Green Valley Dr., Minneapolis, Minn. 55431
F. E. Myers & Bro. Co., 400 Orange St., Ashland, Ohio 44805

N

Nalco Chemical Co., 180 N. Michigan Ave., Chicago, Ill.
National Chemsearch Corp., P.O. Box 217, Irving, Tex. 75060
National Crane Corp., Waverly, Nebr. 68462
National Mower Co., 700 Raymond Ave., St. Paul, Minn. 55114
Naugatuck Chemical, Div. U.S. Rubber, Naugatuck, Conn.
New World Products Co., Inc., 11126 Rush St., El Monte, Calif. 91733
Niagara Chemical Div., FMC Corp., 100 Niagara St., Middleport, N.Y. 14105
Nor-AM Agric. Products, Inc., 20 N. Wacker Dr., Chicago, Ill. 60606
Northrup, King & Co., 1500 Jackson St., N.E., Minneapolis, Minn. 55413
Norton Construction Products Div., Clipper Mfg. Co., P.O. Box 9604, Kansas City, Mo. 641134
John Nunes Mechanical Harvesting Co., 2518 Loquot Ave., Patterson, Calif. 95363
Nunes Turfgrass Nurseries, Inc., 2006 Loquot Ave., Patterson, Calif.
Nursery Specialty Products Co., 410 Greenwich Ave., Greenwich, Conn. 06830

Haul your machines on a Miller **RAMP CHAMP** then put it to work

Two styles of RAMP CHAMPS in 2-axle or 3-axle models . . capacities to 18,000 pounds . . haul your equipment to the job, then tag-a-long to the nursery to earn its keep hauling big loads of stock, sod or other gear. Miller-engineered suspension gentles the ride, keeps b & b stock intact. Put muscle to work for more profit. Muscle from Miller. Write for FREE TRAILERING GUIDE.

Miller's the one with **useability**

MILLER Tilt-Top TRAILERS

460 South 92nd Street Milwaukee, WI 53214

O

Oakes Mfg. Co., FMC Corp., 516 Dearborn St., Tipton, Ind.
Oberdorfer Pump Div., Thompson Rd., Syracuse, N.Y.
Oil-Dri Corp. of America, 520 N. Michigan Ave., Chicago, Ill.
Olin Mathieson Chemical Corp., Chemicals Div., Baltimore, Md.
Oliver Corp., 2 N. Riverside Plaza Chicago, Ill. 60606
Olmsteel Products, Inc., 4625 Farnam St., Omaha, Nebr. 68132
Omark Industries, Inc., 9701 S.E. McLaughlin Blvd. Portland, Ore.
Onan Div., Studebaker Corp., 1400 73rd Ave. N.E., Minneapolis, Minn. 55432
Oregon Fine Leaf Fescue Commission, 605 Weatherly Bldg., Portland, Ore. 97214
Oregon Highland Bentgrass Comm., Suite 1, Ribergro Bldg., 2111 Front St., N.E. Salem, Ore. 97303
Oregon Orchardgrass Seed Products, Comm., 4491 Liberty Rd. S., Salem, Oregon 97302
Orline Products, Div., O. & R. Engines, Inc., 3340 Emery St., Los Angeles, Calif. 90023
Otis Material Handling, 8000 Baker Ave., Cleveland, Ohio 44102
Ousley Sod Co., 4291 N. Dixie Highway, Pompano Beach, Fla. 33064

P

Panama Pump Co., Meadow Lane, Hattiesburg, Miss.
Papec Machine Co., Shortsville, N.Y. 14548
Parco Div., National Foam, Union & Adams Sts., West Chester, Pa. 19380
Parker Sweeper Co., 91 Bechtle Ave., Springfield, Ohio
J. R. Pendleton & Son, Inc., 11300 Georgia Ave., Wheaton, Md. 20902

Alphabetical Listing of Suppliers WEEDS TREES AND TURF Advertisers Listed In Boldface Type With Complete Addresses

S. B. Penick & Co., 100 Church St., New York, N.Y. 10007
Pennington Mfg. Co., 136 Commercial Rd., Addison, Ill.
Pennwalt Chemicals Corp., Pennwalt Bldg., 3 Parkway, Philadelphia, Pa. 19102
Pennstar Kentucky Bluegrass, P.O. Box 923, Minneapolis, Minn. 55440
Robert B. Peters Co., Inc., 2833 Pennsylvania St., Allentown, Pa. 18104
Phelps Dodge Refining Corp., 300 Park Ave., New York, N.Y.
Phillips Petroleum Co., Bartlesville, Okla.
Pioneer Chain Saws Ltd. 910 Monaghan Rd., Peterboro, Canada
Piper Aircraft Corp., Bald Eagle St., Lock Haven, Pa.
Piqua Engineering, Inc., P.O. Box 605, Piqua, Ohio 45356
Pitman Mfg. Co., P.O. Box 605, Grandview, Mo. 64030
Pittsburgh Plate Glass Co., Chemical Div., One Gateway Center, Pittsburgh, Pa. 15222
Plains Supply Co., 2702 Avenue A., Lubbock, Tex. 79404
Plants For You., R.R. #3, Urbana, Ill. 61801
Plant Marvel Laboratories, 624 W. 119 St., Chicago, Ill.
H. K. Porter, Inc., 74 Foley St., Somerville, Mass. 02143
Practical Products Corp., 4611 S. Elwood, Tulsa, Okla. 74107
B. G. Pratt Co., 204 21st St., Paterson, N.J. 07509
Precision Chipper Corp., P.O. Box 5513 Birmingham, Ala. 35207
Premier Peat Moss Corp., 25 W. 45 St., New York, N.Y. 10036
Prentiss Drug & Chemical Co., Inc., 101 W. 31 St., New York, N.Y.
Princeton Turf Farms, Old York Rd, P.O. Box 1008 Hightstown, N.J. 08520
Product Development International, 200 Sylvan Ave., Rutledge, Pa. 19070
Pulmosan Safety Equipment Corp., 30-48 Linden Pl., Flushing N.Y. 11354

Q

Quality Marsh Equipment, P.O. Box 406, Thibodaux, La. 70301
Quick Manufacturing, Inc., 256 Linden Ave., Springfield, Ohio

R

Rain Bird Sprinkler, 7045 N. Grand, Glendora, Calif. 91740
Rain Jet Corp., 301 S. Flower St., Burbank, Calif. 91503
Rain-O-Mat Sprinklers 11701 E. Washington Blvd., Whittier, Calif. 90602
Ransomes, Sims, Jeffries, Ltd., Ipswich, England
Ra-Pid-Gro Corp., 88 Ossian, Dansville, N.Y.
Raven Ind., Inc., Box 1007, Sioux Falls, S. Dak. 57101
Rear's Mfg. Co., P.O. Box 2430, Eugene, Ore.
Reichhold Chemicals, Inc., 525 N. Broadway, White Plains, N.Y.
Reinco, Inc., P.O. Box 584, Plainfield, N.J. 07061
B. G. Reilly Co., P.O. Box 231, N. Scituate, R.I.
Remington Arms Co., Inc., 25000 S. Western Ave., Park Forest, Ill. 60466
Rental Equipment Mfg. Co., 2778 S. Tejon, Englewood, Colo. 80110
Republic Aviation Corp., Helicopter Div., Farmingdale, L.I., N.Y.
Residex Corp., 225 Terminal Ave., Clark, N.J. 07066
Retzloff Chemical Co., 3230 Brookfield, Houston, Texas 77045
Reynolds Metals Co., 6601 W. Broad St., Richmond, Va. 23218
Ridge Plastics Co., P.O. Box 2205, Jonesboro, Ark. 72401
Robeco Chemicals, Inc., 51 Madison Ave., New York, N.Y.
Roberts Chemicals, Inc., P.O. Box 546, Nitro, W. Va.
Rockland Chemical Co., P.O. Box 204, West Caldwell, N.J. 07006
Rogers Mfg. Co., 220 N. Mahaffie St., Olathe, Kans. 66061
Rohm and Haas Co., Independence Mall West, Philadelphia, Pa. 19105
Rolatape, Inc., 1301 Olympic Blvd., Santa Monica, Calif.
Root-Lowell Corp., 1000 Foreman Rd., Lowell, Mich. 49331
Rosco Manufacturing Co., 3118 Snelling Ave., Minneapolis, Minn.
Roseman Mower Corp., 2300 W. Lake Ave., Glenview, Ill. 60025
Roto-Hoe Co., Newbury, Ohio 44065
Roussel Corp., 155 E. 44 St. New York, N.Y.
Rowco Mfg. Co., Inc., 48 Emerald St., Keene, N.H. 03431
Roxy-Bonner, Inc., 2000 Pioneer Rd., Huntingdon Valley, Pa. 19006
Royer Foundry & Machine Co., 158 Pringle St., Kingston, Pa. 18704
Rudd Manufacturing, Inc., P.O. Box 537, Ripon, Calif. 95366
Ryan Equipment Co., 2055 White Bear Ave., St. Paul, Minn. 55109
Ryerson Steel, Box 8000-A, Chicago, Ill. 60680

S

Sabre Saw Chain, Inc., P.O. Box 341, Lewiston, N.Y. 14092
Safety Test & Equipment Co., Inc., P.O. Box 898, Shelby, N.C.
Schneider Metal Mfg. Co., 1805 S. 55 Ave., Chicago, Ill.
Scott Aviation Corp., 255 Erie St., Lancaster, N.Y.
The O. M. Scott & Sons Co., 160 Main St., Marysville, Ohio
S & D Products, 117 Blackhawk Ave., Prairie du Chien, Wis.
Selma Trailer and Mfg. Co., P.O. Box 120, Selma, Calif. 93662
Servis Equipment Co., Box 1590, Dallas, Texas 75221
Sewerage Commission of Milwaukee, P.O. Box 2079, Milwaukee, Wis.
Shamrock Turf Nurseries, Hanna, Ind. 46340
Shell Chemical Co., Agricultural Chem. Div., 2401 Crow Canyon Rd., San Ramon, Calif. 94583
Shepard Chemical Industries, Inc., 595 Madison Ave., New York, N.Y.
H. B. Sherman Mfg. Co., 207 W. Michigan Ave., Battle Creek, Mich. 49014
The Sherwin-Williams Co., 101 Prospect Ave., Cleveland, Ohio
Side-Winder Plant, FMC Corp., P.O. Box 818, Minden, La. 71055
Sierra Chemical Co., 37650 Sycamore, Newark, Calif. 94560
Signal Oil & Gas Co., Houston Div., P.O. Box 5008, Houston, Texas
Sikorsky Aviation Div., United Aircraft Corp., Stratford, Conn.
Silver Creek Precision Corp., 1875 Elmwood Ave., Buffalo, N.Y. 14207
Simplex Mfg. Co., 5224 N.E. 42nd Ave., Portland, Ore. 97218
Simplicity Mfg. Co., Inc., Spring St., Port Washington, Wis. 53074
Skil Corp., 5033 Elston Ave., Chicago, Ill.
Skyworker Div., Transair Co., Inc., P.O. Box 360, Delaware, Ohio

Slope Tractor, Inc., 114—9th St., Harper, Kan. 67058

D. B. Smith & Co., 414 Main St., Utica, N.Y.

Seymour Smith & Son, Inc., 900 Main St., Oakville, Conn. 06779

Smithco., Inc., 11 W. Ave., Wayne. Pa. 19087

Snow Aeronautical Corp. P.O. Box 516, Olney, Texas

Sodmaster, 3456 N. Washington Ave., Minneapolis, Minn. 55412

Sohio Chemical Co., P.O. Box 628 Lima, Ohio

Solo Motors, Inc., 5100 Chestnut Ave., Newport News, Va. 23605

South Dakota Kentucky Bluegrass Assn., P.O. Box 823, Huron, So. Dak. 57350

Southern Mill Creek Products, Inc., P.O. Box 1096, Tampa, Fla. 33601

Southwest Potash Div., American Metal Climax, Inc., 1270 Ave. of the Americas, New York, N.Y. 10020

Special Products Co., 15000 W. 44th Ave., Golden, Colo. 80401

Speedex Tractor Co., 367 N. Freedom St., Ravenna, Ohio

Sprayco Mfgs., Inc., 2806 N. Mill St., Jackson, Miss. 39216

Spraying Systems Co., 3201 Randolph St., Bellwood, Ill. 60104

Sprinkler Irrigation Supply Co., Div. of A. J. Miller, Inc., 1316 N. Campbell Rd., Royal Oak, Mich. 48067

Standard Mfg. Co., P.O. Box 68 Cedar Falls, Iowa 50613

Stanford Seed Co., P.O. Box 230, Plymouth Meeting, Pa. 19462

Victor Stanley, Inc., P.O. Box 93, Dunkirk, Md. 20754

Stauffer Chemical Co., Fertilizer Div., 636 California St., San Francisco, Calif.

Stauffer Chemical Co., Agricultural Chemical Div., 299 Park Ave., New York, N.Y. 10017

Wm. Steinen Mfg. Co., 29 E. Halsey Rd., Parsippany, N.J. 07054

Side-Winder Plant, FMC Corp., P.O. Box 818, Minden, La. 71055

Stepan Chemical Co., Edens & Winnetka, Northfield, Ill. 60093

Stihl American, Inc., 194 Greenwood Ave., Midland Park, N.J.

Stone Fabricators, Inc., Main St., Honeoye, N.Y. 14471

Stull Chemical Co., P.O. Box 6386, San Antonio, Tex. 78209

Submatic, Inc., P.O. Box 246, Lubbock, Tex. 79408

Sudbury Laboratory, Box 2471 Sudbury, Mass. 01776

Summers Fertilizers, Inc., Kapco Div., P.O. Box 487, Somerset, Pa. 15501

Sun Industry, Inc., 12418 W. Rosemary, New Berlin, Wis.

The Sun-Mastr Corp., 603 S. Kansas Ave., Olathe, Kansas

Sunnyhill Research & Mfg. Co., Imperial, Pa.

Superior Chemical Products, Inc., 3942 Frankford Ave., Philadelphi Pa. 19124

T

Tallman Equipment Co., Inc., 3825 W. 31st St., Chicago, Ill. 60623

Tarrant Mfg. Co., 27-29 Jumel Pl., Saratoga Springs, N.Y.

Tecumseh Products Co., 900 North St., Grafton, Wis. 53024

Telsco Industries, Weathermatic Div., P.O. Box 18205, Dallas, Tex.

Teledyne Wisconsin Motor Corp., 1910 S. 53rd St., Milwaukee, Wisc. 53246

Tenneco Oil Co., P.O. Box 18, Houston, Tex.

Tennessee Corp., Ind. Chemicals Div., 55 Marietta St., N.W., Atlanta, Ga. 30301

Terrain King Corp., P.O. Box 7616 Houston, Texas 77007

Thompson Equipment Co., N. Washington St., Starksville, Miss

Thompson-Hayward Chemical Co., P.O. Box 2383, Kansas City, Kans. 66110

The Thompson Manufacturing Co., 2251 E. 7 St., Los Angeles, Calif.

Thor Power Tool Co., 175 N. State St., Aurora, Ill. 60507

Thuron Sprayer Mfg. Co., 12204 Denton Dr., Dallas, Tex. 75234

Toro Manufacturing Corp., 8111 Lyndale Oce. S., Minneapolis, Minn. 55420

Cuts twice as fast as most lawn tractors, hugs the ground for hillside safety

NATIONAL 68-inch Triplex

Mows a 68-inch swath at speeds up to 4 miles per hour, a half acre in 15 minutes.

It's a turf-professional type mower, with three powered, free-floating reels that follow ground contour. It shears grass cleanly; doesn't leave unsightly "tip burn" as rotaries often do.

Reduces trimming time because the reels reach out over curbs, up to obstructions and in other hard-to-cut places.

Built to last—with Timken bearings, automotive-type transmission and a lip on the cutter bar to take years of wear.

Do your lawn job in about half the time and do it better with the all-mower mower, the National Triplex.

Other models from 25 to 84-inch cut.

Write for information.

NATIONAL MOWER COMPANY

660 Raymond Avenue, St. Paul, Minnesota 55114
Phone: 612/646-4079

Tote Systems Div., Hoover Ball and Bearing Co., 656 S. 7th, Beatrice, Nebr.
Tradewinds, Inc., P.O. Box 1191, Tacoma, Wash. 98401
Trailevator Div., Magline, Inc., Mercer St., Pinconning, Mich. 48650
Tree-Ject Co., 1309 Grove Ave., Waycross, Ga. 31501
Triumph Machinery Co., Willow Grove St., Hackettstown, N.J. 07840
Troy Blanket Mills, 132 W. 34 St., New York, N.Y.
Tryco Mfg. Co., Inc., P.O. Box 1277, Decatur, Ill. 62525
TUCO Products Co., Div. of Upjohn Co., 7171 Portage Rd., Kalamazoo, Mich. 49002
Turf Vac Corp., P.O. Box 7382, Long Beach, Calif. 90807
Tyler Corp., E. Highway #12, Benson, Minn.

U

U.S. Borax & Chemical Corp., 3075 Wilshire Blvd., Los Angeles, Calif. 90005
U.S. Industrial Chemicals Co., 99 Park Ave., New York, N.Y.
U.S.S. Agri-Chemicals, Div. of U.S. Steel Corp., P.O. Box 1685, Atlanta, Ga. 30301
Union Carbide Corp., Agricultural Products, 1078 Merrill St., Salinas, Calif. 93901
Uniroyal Chemical, Div., of Uniroyal, Inc., Elm Street Naugatuck, Conn. 06770
Universal Metal Products Div., Leigh Products, Inc., 430 Main St., Saranac, Mich. 48881
Universal Motor Co., 1552 Harrison St., Oshkosh, Wis.
Utility Chemical Co., 145 Peel St., Paterson, N.J. 07524

V

Valmont Industries, Inc., Valley, Nebr. 68064
The Vandermolen Co., P.O. Box 967, N. Caldwell, N.J. 07006
Vaughan's Seed Co., Chimney Rock Rd., Bound Brook, N.J.
Velsicol Chemical Corp., 341 E. Ohio St., Chicago, Ill. 60611
Venture Systems, Inc., P.O. Box 5048, Fresno, Calif. 93755
Verde Lawn, Inc., P.O. Box 11157, Tuscon, Ariz. 85706
Vermeer Manufacturing Co., P.O. Box 200, Pella, Iowa 50219
VersaLift Sales Co., P.O. Box 829, Elkton, Md.
Viking Mfg. Co., P.O. Box 68, Manhattan, Kans. 66502
Viking Pump Co., 4th & Shutte Sts., Cedar Falls, Iowa
Village Blacksmith, 201 Frederick St., Watertown, Wis. 53094
Vineland Laboratories, Inc., 2285 E. Landis Ave., Vineland, N.J. 08360
Vistron Corp., P.O. Box 628, Lima, Ohio 45802
Vulcan Materials Co., P.O. Box 545 Wichita, Kans. 67203

W-X-Y-Z

Waco Lickity Log Splitter Div., Piqua Engineering, Inc., 234 1st St., Piqua, Ohio
R. M. Wade & Co., 1919 N.W. Thurman St., Portland, Oreg. 97209
Waldon, Inc., 201 W. Oklahoma Ave., Fairview, Okla. 73737
Walker Mfg. Co., Fowler, Kans. 67844
Walsh Manufacturing Co., 1200 Fisher St., Charles City, Ia. 50616
Warren's Turf Nursery, 8400 W. 111th St., Palos Park, Ill. 60464
"Water-In," Inc. P.O. Box 421, Altadena, Calif.
Waukesha Motor Co., W. St. Paul Ave., Waukesha, Wis.
Waverly Petroleum Products Co., 3018 Market St., Phila., Pa.
Waymark, 44 River St., Cortland, N.Y. 13045
Wayne Manufacturing Co., 1201 E. Lexington St., Pomona, Calif.
WD-40 Company, 5390 Napa St., San Diego, Calif. 92110
H. N. Webster Mfg., P.O. Box 623, Sebring, Fla.
Welsh Mfg. Co., 9 Magnolia St., Providence, R.I. 02909
Weldex, Old Westboro Rd., Grafton, Mass. 01519
West Berg Mfg. Co., 3400 Westach Way, Sonoma, Calif.
West Chemical Products Co., 42—16 WWest St., Long Island City, N.Y. 11101
Western Peat Co., 5800 Monroe St., Sylvania, Ohio
Weyerhaeuser Co., Tacoma Bldg., Tacoma, Wash.
Wheel-Horse Products, Inc., 515 W. Ireland Rd., South Bend, Ind. 46614
The Whitaker Manufacturing Co., 5719 W. 65 St., Chicago, Ill. 60638
Whitney Seed, Div., W. R. Grace & Co., P.O. Box 250, Buffalo, N.Y. 14240
Wichita Equipment Co., Inc., P.O. Box 1329, Wichita Falls, Tex.
Wilbur-Ellis Co., 970 S. Goodrich Blvd., Los Angeles, Calif.
Wiley Miner Associates, Inc., P.O. Box 392, Cranbury, N.J.
Williamstown Irrigation, Inc., Williamstown, N.Y. 13493
Willson Products Div., Ray-O-Vac Co., 2nd & Washington Aves., Reading, Pa.
Wilsco, Inc., 2345 W. Mockingbird Lane, Dallas, Texas 75235
Andrew Wilson, Inc., Baltusrol Way, Springfield, N.J.
World Wide Golf Enterprises, Inc., 2708 DeSoto Rd., Sarasota, Fla. 33580
Wright Saw Div., Thomas Industries, 207 E. Broadway, Louisville, Ky.
W-W Grinder Corp., 2957 N. Market, Wichita, Kans.
Wyandotte Chemicals Corp., 1532 Biddle Ave., Wyandotte, Mich. 48192
Yazoo Mfg. Co., Inc. P.O. Box 4207, Jackson, Miss. 39216
York Modern Corp., Mill & Watson St., Unadilla, N.Y. 13849
Zonolite Div., W. R. Grace & Co., P.O. Box 517, Travelers Rest, S. Car. 29690

SECOND EDITION (REVISED)

"Scientific Guide To PEST CONTROL OPERATIONS"

Just made available. Here is a revised issue (bound in a deep brown) of the popular Second Edition of "Scientific Guide to Pest Control Operations," written by Dr. Lee C. Truman and Dr. William L. Butts. The textbook-reference guide, written especially for the pest control industry, is published in cooperation with Purdue University.

Postpaid in U.S.A. — $9.00 **Postpaid Elsewhere — $10.00**

(Ohio Residents Add $.36 sales tax)

WEEDS TREES and TURF
9800 Detroit Avenue, Cleveland, Ohio 44102

Please send me postpaid ..... copies of "Scientific Guide to PEST CONTROL OPERATIONS"

Enclosed is my check for $.....

Please Print

Name .....

Company .....

Address .....

City ..... **State** ..... **Zip** .....

WEEDS TREES and TURF

1971 ARTICLE INDEX

KEY: Feature article, (fa); news story, (ns); conference report, (cr); book report, (br); obituary, (o); and editorial, (ed); (c) column.

A

	Issue Pg.
Acorns, Nursery Plants From Famous Tree (ns)	Jan. 22
Ag Science in Jeopardy, Weed Science Society Report (cr)	Apr. 26
Aerial Applicators Association, National, Same, Yet Different (cr)	Feb. 46
Aerial Applicators Tax Relief Sought (c)	July 8
Aerial Applicators, 'User Ta,x Rules on Payments (c)	June 10
Aid Program, Interior Dept. Changes (c)	July 8
Airports, Tale of Two Cities', In Vegetation Maintenance (fa)	May 18
Algicide or Algistat to Clear Up Foul Water (ns)	Jan. 37
Algicide, Swimtrine, Receives USDA Registration (ns)	Apr. 58
American Association of Nurserymen, Landscape Outlook (ns)	Feb. 34
American Association of Nurserymen, 96th Anual Convention Report	Sept. 28
American Sod Producers Summer Meeting, Michigan, Sod Research, Field Tour (cr)	Aug. 40
Amitrole, Cancellaton Misleading (L)	Oct. 38
Amitrole Registration Cancelled (c)	Aug. 8
Aphids, Here's How to Whip Selected Turf Pests (ns)	May 44
Aquamarine Corporation Report, The Aquatic Weed Harvester in the Park System (fa)	July 19
Aquatic Weed Control, An Industry Grows by John E. Gallagher (fa)	July 12
Aquatic Weed Control, Mechanics of Spraying by Frank L. Wilson (fa)	July 16
Aquatic Weed Control Report, The Hyacinth Control Society 11th Annual (cr)	Sept. 24
Aquatic Weed Control, The Strip Method by L. E. Bitting, Sr. (fa)	July 14
Aquatic Weed Control, Using Available Tools by Andy L. Price (fa)	July 13
Aquatic Weed Control, Weed Science Society Reports (cr)	Apr. 26
Aquatic Weed Harvester in the Park System (fa)	July 19
Aquatic Weed Pollution, Industry Problem for the 70's (fa)	July 11
(Aquatic Weeds), Cutrine-Diquat Combination Combination Tested (ns)	July 46
Aquatic Weed Symposium, Blackburn Reports On (ns)	Sept. 36
Arborist Association, Consulting, Founded 4 Years Ago (ns)	Nov. 34
Arborists, Consulting, Plan for 1972 Annual (cr)	June 24
Arborist Association, National, Changing of the Gavel (cr)	Apr. 36
Arborist Association, National, Establishes Fee for Home Study Course (ns)	July 28
Arborist Association, National, Tampa, Fla., Meeting (cr)	Apr. 34
Arborists, American Society of Consulting, Leaders (cr)	June 24
Arborists, Municipal, Survey Reveals More Funds for Tree Care, Error in Article (L)	Feb. 16
Arborist, The Year B.C. & A.O. (ns)	Sept. 42
Asphalt Parking Lots—Hothouse for Weeds (fa)	Nov. 12
Association Crisis, The (ed)	Oct. 6
(Athletic Facilities), More Useable Space For the Practice Field by Melvin J. Robey and W. H. Daniel (fa)	Sept. 16
Athletic Field Maintenance—Timing Is Critical by Melvin J. Robey and W. H. Daniel (fa)	Nov. 26

B

Badger Tree Service, Let's Put the Care Back Into Tree Care by Lou Speer (fa)	Feb. 30
Badger Tree Service, To Trim a Tree Artistically (fa)	Apr. 24
B.A.G. Corporation, Materials Handling, New Concept (fa)	Aug. 20
Baton Twirlers and Golfers by Donald McGuiness (fa)	July 20
Beard, James B., Honored As Fellow In ASA (ns)	Sept. 40
Beck Mfg. Co., Why We Developed the Big Roll System by Martin Beck (fa)	Oct. 26
Bee, Indemnity for Losses (c)	July 8
Bees, African Honey, A Threat (c)	Sept. 8
Beetle Attractant, No Faith In (L)	Feb. 16
Beetle, White-Fringed, Quarantine (c)	Apr. 12
Benomyl for Fusarium Blight, Says MSU (ns)	Apr. 49
Bentgrass Announced by Northrup, King (ns)	June 28
Bermuda, Hybrid, Calf-Turf Trials Show What A Mower Needs to Cut (fa)	Jan. 24
Bidding Specifications, Turfgrass Seed and Fertilizer by William E. Knoop (fa)	Oct. 14
Biological Control of Thatch Under Study In Conn. (ns)	Jan. 27
Biological Controls, Egyptians Research (c)	Sept. 8
Biological, Using Available Tools, Aquatic Weed Control by Andy L. Price (fa)	July 13
Bluegrass, Baron, Now For Sale in Canada (ns)	June 28
Bonsai, Culture of, Is New Florida Publication (ns)	Aug. 28
Bonsai Teaching Film for Purchase or Lease (ns)	Sept. 19
Boulder Greenbelt by Lou Speer	Dec. 12
Broadleaf Weed Control, The Perfect Herbicide, Is It Possible? by J. S. Skaptason (fa)	Aug. 16
Brush Control, Weed Science Society Reports (cr)	Apr. 28
(Business), An Industry Grows, Aquatic Weed Control by John E. Gallagher (fa)	July 12
(Business), Artists Come in Many Colors (ed)	June 6
(Business), Companies Spend Heavily for Registration and Monitoring (fa)	July 24
(Busniess), Consumer Protection Group	July 8
(Business), Cost Figures Compiled by Landscape Contractors (ns)	June 32
(Business), Dont's and Do's In Client Relations by Richard A. Stemm (fa)	Oct. 20
(Business), Environmental Protection Agency by Gene Ingalsbe (fa)	Mar. 16
(Business), How Merion Bluegrass Was Promoted to Number 1, by Margaret Herbst (fa)	Jan. 20
(Business), How to Evaluate a Feltilizer Bid by Ron Smith (fa)	Apr. 18
(Business), How To Foul Up a Herbicide Program Cecil Kerr (fa)	Feb. 28
(Business), Large-Scale Turf Maintenance—Care and Cost by Joseph J. Bazzani (fa)	Nov. 8
Business, On Protecting Yours (ns)	Oct. 42
(Business), Rent-A-Rig System, IH Dealers (ns)	Apr. 38
(Business), Sod Pricing Policy Chief Industry Need (fa)	July 40
(Business), Watching Costs (fa)	Feb. 18
(Business), What Will You Do If Wage-Price Controls Come? by David L. Markstein (fa)	Mar. 28
(Business), Words of Wisdom From a Winner, Tree Care by Howard F. Harvey Jr. (fa)	June 8
(Business), Young Man in a Hurry, Ky-Inna Turf Supply (fa)	May 42

C

California, Pine Tree Rinse (fa)	Aug. 11
California Weed Book Increased in Size (ns)	Nov. 18
California Weed Conference, A National Pesticide Lab (cr)	Mar. 62
Cal-Turf Trials Show What a Mower Needs to Cut Hybrid Bermuda (fa)	Jan. 24
Canadian Sod Giant (fa)	Nov. 19
Cancellation, Suspension, What's the Difference (ns)	June 17
Certification, Professional, For Golf Course Superintendents by Palmer Maples, Jr. (fa)	Sept. 18
Chemicals, Puerto Rico's Proposal (c)	Nov. 7
Chemical—Using Available Tools, Aquatic Weed Control by Andy L. Price (fa)	July 13
Chemtrec—For Emergencies (c)	Oct. 8
Chicago, In Vegetation Maintenance, Tale Of Two Cities' Airports (fa)	May 18
Chinch Bugs, Helicopter Used (ns)	May 32
Chinch Bug, Here's How To Whip Selected Turf Pests (ns)	May 44
Chipman, Rhodia Co., Buys Missouri Plant (ns)	Sept. 40
Chlordane Booklet Available From Velsicol (ns) Chemical Corp.	Jan. 27
Clients, Don'ts and Do's in Relations by Richard A. Stemm (fa)	Oct. 20
Colloidal Reduces Drift in Herbicide Spraying (ns)	Oct. 39
Competition, Has the Edge, Your (ed)	Apr. 10
Contract Applicator, In Commercial Turf, In Industrial Weed Control, In Tree Care (fa)	Sept. 11
Controls, If Wage-Price Come, What Will You Do. by David L. Markstein (fa)	Mar. 28
Crabgrass Herbicides, Charcoal Need Not Hinder (ns)	May 53
Crabgrass, Pre-emergence Herbicides, Ohio Turfgrass Conference (cr)	Feb. 40
Crown Gall of Woody Plants by Dr. W. K. Hock	June 20
Cutrine Okay for Potable Water (c)	Aug. 8
Cutrine, Three States Approve Label for Turf and Ornamentals (ns)	July 39

D

DDT Banned by Japanese Government (ns)	June 28
DDT Hearings to Resume in Mid-Summer (c)	June 10
DDT, Notice of Cancellation of Remaining Uses (c)	Feb.. 12
(Developing), Companies Spend Heavily For Registration and Monitoring (fa)	July 24
Dinsmore, F. Lewis, The Contract Applicator In Tree Care (fa)	Sept. 11
(Disease), Crown Gall of Woody Plants by Dr. W. K. Hock (fa)	June 20
Ditch Witch, Industry Innovator (fa)	Oct. 34
Don'ts and Do's In Client Relations by Richard A. Stemm	Oct. 20
Dow Files Objection (c)	Nov. 7
Duich, Joe, and Pennstar, The Story Behind (fa)	Jan. 8
Dutch Elm Disease, Federal Entomologist Blesses Methoxychlor For (fa)	Apr. 38
(Dutch Elm Disease), National Arborist Assoc. Meeting (cr)	Apr. 34
Dutch Elm Disease, Nematodes May Provide Answer To (ns)	May 54
(Dutch Elm Disease), The Widening Potential of Tree Injectoin by Del Kennedy (fa)	Nov. 15

E

Ecologize—Rally Cry for Highland Park, Michigan's Beautification Program (fa)	Oct. 16
Ecology—It Won't Go Away by Joseph E. Howland (fa)	Sept. 39
Ecology, Nature's Disrupter, The Gypsy Moth (fa)	May 26
Editorial Enjoyed (L)	Feb. 16
Edminster, Talcott W., Named ARS Administrator (c)	Sept. 8
(Employee Training), Tale of Two Cities' Airports (fa)	May 18
Entomological Society of America (c)	Apr. 12
Environmental Awards, Associated Landscape Contractors of America (cr)	Feb. 46

Issue Pg.

Environmental Bulletin, USDA Release (ns) ..... Aug. 36
Environmental Jobs (c) ..... May 12
Environmental Protection Agency by Gene Ingalsbe (fa) ..... Mar. 16
Environmental Protection Agency Begins New Review (c) ..... Nov. 7
Environmental Protection Agency(New Head For Health Group ..... Oct. 8
Environmental Protection Agency Organizational Changes (c) ..... June 10
Environmental Purifiers, Trees Are Excellent (ns) ..... June 32
Environmental Rehabilitation Systems, Inc. Ecologize (fa) ..... Oct. 16
Environmental Services Offered by Dow Chemical (ns) ... Aug. 25
Environment, Controlling and Using A Safe (ns) ..... Feb. 38
Environment, For Improved, Long Range Weed Control Programs by Leo Miles (fa) ..... July 22
Environment Management (ed) ..... Nov. 6
Environment, PCB's in the (ns) ..... Nov. 34
(Environment), Pesticide Legislation—Just Where Are We Headed (fa) ..... June 16
Environment—Surfactants by David E. Bayer (fa) ..... Oct. 18
Environment, The Golden Rule As Applied To the (e) ..... Jan. 6
(Equpiment), Aquatic Weed Control, The Hyacinth Control Society 11th Annual (cr) ..... Sept. 24
(Equipment), The Aquatic Weed Harvester in the Park System (fa) ..... July 19
(Equipment), Cal-Turf Trials Show What A Mower Needs To Cut Hybrid Bermuda (fa) ..... Jan. 24
(Equipment), Direct Planting for Highway Rights-of-Way by H. W. Everett (fa) ..... June 12
(Equipment), Ditch Witch Industry Innovator (fa) ..... Oct. 34
(Equipment), Golf Course Superintendents Assn. of America (cr) ..... Apr. 46
(Equipment), Gypsy Moth Control Program in New York (fa) ..... May 28
(Equipment), Helicopter Seeding a Golf Course (fa) ..... Feb. 24
(Equipment), Helicopter Seen As Labor Saver, Sand Trap Rig (ns) ..... May 56
(Equipment), In Vegatation Maintenance, Tale of Two Cities' Airports (fa) ..... May 18
(Equipment), Irrigation by Saber Slice, Jack Soderstrom Tells How To Install (fa) ..... Apr. 16
(Equipment), Materials Handling, New Concept (fa) ..... Aug. 26
(Equipment), Precision Builds New Chipper (ns) ..... Aug. 36
(Equipment), Sod, Why We Developed The Big Roll System by Martin Beck (fa) ..... Oct. 26
(Equipment), Rights-of-Way, the New Look by Harold F. Pomeroy (fa) ..... Oct. 10
(Equipment), Using Available Tools, Aquatic Weed Control by Andy L. Price (fa) ..... July 13
(Equipment), When the Chinch Bugs Struck, They Called a 'Copter (ns) ..... May 32
(Equipment), Why I Believe in Flail Mowers by Elmer Mott (fa) ..... June 18
(Erosion), Direct Plantings for Highway Right-of-Way by H. W. Everett (fa) ..... June 12

F

Fairlawn Sod Nursery Ltd., Canadian Giant (fa) ..... Nov. 19
Fanny Flag is Offical Emblem (ns) ..... Aug. 25
Fenimore, Clark, Young Man in a Hurry (fa) ..... May 42
Fertigation, Soil Effects From Nitrogen Sources, Pest Control, Florida Research ..... Mar. 32
Fertilizing, New Formula May Open Door For Deep Root Tree Injection (fa) ..... Aug. 18
(Fertilizing), The Widening Potential of Tree Injection by Del Kennedy (fa) ..... Nov. 15
(Fertilizing), Tree Injection, New Concept (ns) ..... June 30
Fertilizer, Bidding Specifications, Turfgrass Seed and by William E. Knopp (fa) ..... Oct. 14
Fertilizer Bid, How to Evaluate by Ron Smith (fa) ..... Apr. 18
Fertilizer Pricing (c) ..... Apr. 12
Fescues, Fine, Lawngrass Extraordinary . . . by Dr. Robert W. Schery (fa) ..... Jan. 16
Field, More Useable Space For the Practice by Melvin J. Robey and W. H. Daniel (fa) ..... Sept. 16
Fish and Wildlife, More Protection For (c) ..... Aug. 8
Flail Mowers, Why I Believe In by Elmer Mott (fa) ..... June 18
Flame Weeding, Another Alternative for Weed Control (fa) ..... Apr. 22
Florida Nurserymen and Growers Association, Floridian Cities Park Directors' Five Problems by Ruth Stuart Allen (cr) ..... Jan. 36
Florida Research, Soil Effects From Nitrogen Sources, Fertigation, est Control (fa) ..... Mar. 32
Foamspray, Now Readily Available, Wilsco Co. (ns) ..... Oct. 24
Forest, National Recreational Areas, Fees Will Be Charged (c) ..... Feb. 14
Franchises, Warren's Turf Seeking (ns) ..... Feb. 36
(Fungicide), Tersan, DuPont Co. Announces (ns) ..... Apr. 43
Fusarium Blight, Benomyl For, Says MSU (ns) ..... Apr. 49
Fusarium Blight Shows Up In Michigan Sod Area (ns) ... July 46

G

Gabriel Chemicals Acquire B. G. Pratt Co. (ns) ..... July 28
GAC Utility Products, Inc., New Name For Highway Line (ns) ..... Sept. 40
Gates, Robert J., Newly Elected President of Hyacinth Control Society (cr) ..... Sept. 24
(Generation Gap), Change by Itself Will Fail (ed) ..... Aug. 6
Golf Course Architect Offers Construction Article (ns) ..... July 26
Golf Course Builders of America Organize New Trade Group (ns) ..... Jan. 26
Golf Course, 'Copter Seeding (fa) ..... Feb. 24
Golf Course Irrigates With 'Used Water' by Albert S. Keshen (fa) ..... May 38
Golf Course, Irrigation by Saber Slice, Jack Soderstrom Tells How to Install (fa) ..... Apr. 16
Golf Course, Sand Trap Rig, 'Copter Seen As Labor Savers (ns) ..... May 56
Golf Course Superintendents Assoc. (Northern Calif.) Elects New 1971 Officers (cr) ..... June 28
Golf Course Superintendents Assoc. of Amer., 42nd, 'Greatest Show on Turf' (cr) ..... Apr. 45
Golf Course Superintendents Assn. of Amer., Officers and Directors (cr) ..... Apr. 45
Golf Course Superintendents, Professional Certification For by Palmer Maples, Jr. (fa) ..... Sept. 18
Golfers, Baton Twirlers and by Donald McGuiness (fa) ... July 20
Golf, Municipal, Its Role In The American Golf Scene by Harry C. Eckhoff (fa) ..... Jan. 10
Grass Clippings, Freeze Dried (c) ..... Oct. 8
Grasshoppers (c) ..... Apr. 14
Grass Seed Industry, An Oregon Empire (fa) ..... Aug. 20
Grass Seed Table—Omitted In Oregon Empire Article (L) ..... Oct. 38
Grasses, Conservation, Soil Conservation Service Announces (ns) ..... May 53
Grounds Manager, Professional, Elect Officers at Princeton (cr) ..... Nov. 35
Growth Retardants, Maintain Success Boosing by Gordon K. Harris, G. Burke Garrett & David O. Anderson (fa) ..... Mar. 20
Grubs, Biological Control in Turfgrass (ns) ..... Sept. 35
Gypsy Moth Cresote Again Being Marketed (ns) ..... July 42
Gypsy Moth Infestation Found In Florida (ns) ..... July 29
Gypsy Moth, Insecticide Formulations Effective For (ns) ..... Sept. 36
Gypsy Moth Research, USDA Asked to Speed Up (ns) ..... Jan. 36
Gypsy Moth Control, Sex Attractant Tested (ns) ..... Junt 31
Gypsy Moth Sex Lure (c) ..... Nov. 7
Gypsy Moth Studies, Grants Awarded For (c) ..... Aug. 8
Gypsy Moth, USDA Has Extended Regulated Areas (c) ... Feb. 14

H

Hahn Div. Leaves Kearney-National Inc. (ns) ..... Apr. 38
Helicopter, Sand Trap Rig, Seen As Labor Savers (ns) ... May 56
(Helicopter), Seeding a Golf Course (fa) ..... Feb. 24
Helicopter, When the Chinch Bugs Struck They Called A (ns) ..... May 32
Heyser Landscaping Buys Portion of Dekalb Nurseries (ns) ..... Apr. 38
Highway Awards, FHA Announces (ns) ..... Mar. 26
Highway Environment of Age (ed) ..... Sept. 6
Highway Rest Areas Offer Landscape Ideas (ns) ..... Aug. 28
Highway Rights-of-Way, Direct Plantings (fa) ..... June 12
Highway Tree, The, Selection and Maintenance by Robert A. Bartlett (fa) ..... Aug. 13
Herbicide Added to Mulch (c) ..... Aug. 8
Herbicide Manufacturers Responsibility, Weed Science Society Reports (cr) ..... Apr. 26
Herbicide Program, How To Foul Up A by Cecil F. Kerr (fa) ..... Feb. 28
Herbicide Safety, An Attack On Ignorance and Carlessness by Dr. Blair Bailey ,fa) ..... Nov. 11
Herbicide Spraying, Colloidal Reduces Drift (ns) ..... Oct. 39
(Herbicide), Trex-San (ns) ..... Apr. 43
Herbicides, An Additive Found to Enhance the Efficiency Of (c) ..... Apr. 14
Herbicides, Aquatic Weed Control, Mechanics of Spraying by Frank L. Wilson (fa) ..... July 16
(Herbicides), Asphalt Parking Lots—Hothouse for Weeds (fa) ..... Nov. 12
Herbicides, Best For Tree Planting by Gordon R. Cunningham and Gavin G. Weis (fa) ..... Mar. 18
Herbicides, Charcoal, Need Not Hinder Crabgrass (ns) ..... May 53
Herbicides Most Harmful When Being Handled (ns) ..... May 50
Herbicides, Pre-Emergence, Crabgrass, Ohio Turfgrass Conference (cr) ..... Feb. 40
Herbicides on Turf, Weed Science Society Reports (cr) ... Apr. 28
(Herbicides), The Perfect Broadleaf Weed Control, Is It Possible? by J. S. Skaptason (fa) ..... Aug. 16
Horticultural Research Institute (c) ..... Mar 14
Horticultural Research Institute Publishes Industry Glossary (ns) ..... July 29
Horticultural Standards, Refinement of (ns) ..... Jan. 36
Horticulture Technology Curriculum, A Special Ornamental (c) ..... Apr. 14
Horticultural-Therapy Curriculum at Kansas State (ns) ..... July 50
Houston, Tale of Two Cities' Airports, In Vegetation Maintenance (fa) ..... May 18
Hyacinth Agenda, Water Problems, Water Fun (cr) ..... Apr. 52
Hyacinth Control Society, Aquatic Weed Control Report, 11th Annual (cr) ..... Sept. 24

I

Infestation, Areas Of, The Gypsy Moth (fa) ..... May 28
Inflation Will Be the Major Business Problem In 1971 (c) ..... Feb. 12
Information Index, 400 References For Weed Control (fa) ..... Mar. 38
Irrigation By Saber Slice, Jack Soderstrom Tells How To Install (fa) ..... Apr. 16
(Irrigation), Golf Course Irrigates With 'Used Water' by Albert S. Keshen (fa) ..... May 38
Irrigation Show, National, Begins Feb. 29 At Denver (ns) ..... Oct. 42
Irrigation, Submatic Is Marketing New Concept (ns) ..... June 28
Insect and Disease—Not the Same! (L) ..... Feb. 16
(Insect Control), Chevron Gets Tree Label for Dibrom 8 Emulsive (ns) ..... Sept. 40
(Insect Control), Tree Injection, New Concept (ns) ..... June 30
Insect Report for 1970, Eleven New U.S. Records (c) ..... Feb. 14
Insecticides, New, Tested (c) ..... Nov. 7
International Pesticide Applicators Assn. Conference at Seattle by Lew Sefton (cr) ..... Nov. 17
International Shade Tree Conference Plans Include Outdoor Demonstrations For Convention (ns) ..... July 28

Issue Pg.

International Shade Tree Conference Report, The 47th at Montreal (cr) ..... Sept. 20

J

Jacklin, Doyle, Elected President Seed Trade ..... Aug. 42
Jacklin Seed Company, Inc. Gives Fylking Top Rating (ns) ..... June 27
Johnsongrass, Plant Growth Regulator May Work On (ns) ..... Apr. 38

K

Keel Re-elected President of NW Turfgrass Assn. (cr) ..... Jan. 31
(Kentucky Bluegrass), The Story Behind Joe Duich and Pennstar (fa) ..... Jan. 8
Kidwell, Watching Costs (fa) ..... Feb. 18
Klupenger, Joseph, Newly Elected President of AAN (cr) ..... Sept. 28
Kramer, Norman W., Suffers Fatal Heart Attack (o) ..... July 28
Krovar I, Label For (c) ..... Oct. 8

L

Land Management (c) ..... Feb. 12
Landscape Assn., National, Board (cr) ..... Apr. 48
Landscape Assn., National, 1st Meeting (cr) ..... Apr. 48
Landscape Contractors Compile Cost Figures (ns) ..... June 32
Landscape Industry Has Changed In Last Generation (ns) ..... June 29
Landscape Outlook, 'Interim Grower' Concept Seen By AAN Group (ns) ..... Feb. 34
Landscapers, Foresight For, Ecology—It Won't Go Away by Joseph E. Howland (fa) ..... Sept. 39
Laser Attack, Commends (L) ..... Feb. 16
Lawngrass Extraordinary . . . Fine Fescues by Dr. Robert W. Schery (fa) ..... Jan. 16
Lawngrass, Wintergreen, Now Available (ns) ..... Sept. 35
Legislation, Pesticide—Just Where Are We Headed (fa) ..... June 16
Lawn Weed Herbicide Bulletin Is Revised (ns) ..... June 42
Lofts Pedigreed Seed Retains Name of Baron (ns) ..... Aug. 42
LTV Aerospace Corp. Acquires R. L. Wilson Co. (ns) ..... Aug. 42

M

Maintenance and Selection, The Highway Tree by Robert A. Bartlett (fa) ..... Aug. 13
Maintenance, Athletic Field, Time Is Critical by Melvin J. Robey and W. H. Daniel (fa) ..... Nov. 26
(Maintenance), Baton Twirlers and Golfers by Donal McGuiness (fa) ..... July 20
(Maintenance), Vegetation, Tale of Two Cities' Airports (fa) ..... May 18
Maintain Success Boosting Growth Retardants, by Gordon K. Harris, G. Burke Garrette, and David O. Anderson (fa) ..... Mar. 20
Management, Canadian Sod Giant (fa) ..... Nov. 19
Management Handbook, The by Howard B. Sprague (br) ..... Jan. 17
(Marketing), Canadian Sod Giant (fa) ..... Nov. 19
Materials Handling, New Concept (fa) ..... Aug. 26
Mercury, USDA Asks For Comments On Uses Of (ns) ..... Jan. 29
Merion Bluegrass Assn. Reports Good Crop Outlook (ns) ..... July 41
Merion Bluegrass, Was Promoted To Number 1, How by Margaret Herbst (fa) ..... Jan. 20
Methoxychlor, Federal Entomologist Blesses, For DED (ns) ..... Apr. 38
Michigan Growers Visit, Sod Research, Field Tour (cr) ..... Aug. 40
Michigan Highland Park, Ecologize (fa) ..... Oct. 16
Minnesotians, Early Success for (L) ..... Feb. 16
Mobil Aerial Towers, Inc., Has Mounted Tower Unit On Track Vehicle (ns) ..... Nov. 31
Mott, Elmer, 'Why I Believe In Flail Mowers' by Elmer Mott (fa) ..... June 18
Mower, What a Mower Needs To Cut Hybrid Bermuda, Cal-Turf Trails Show (fa) ..... Jan. 24
Mowers, Flail ,Why I Believe In by Elmer Mott (fa) ..... June 18
Mulch, Dairy, For Turf, Works Like Hair Restorer (ns) ..... Jan. 29
Municipal Golf, Its Role In the American Golf Scene by Harry C. Eckhoff (fa) ..... Jan. 10
Musser Turf Foundation Granted Tax-Exempt Status (ns) ..... Aug. 43

N

Nebraska, Lincoln, Ordinance Authorizes Tree Planting (L) ..... May 52
Nematodes May Provide Another Answer To DED (ns) ..... May 54
New York, Great Neck, Large-Scale Turf Maintenance—Care and Cost by Joseph J. Bazzani (fa) ..... Nov. 8
Nitrogen Fertilization, Florida Research (fa) ..... Mar. 32
North Central Weed Control Conference Report, Pesticides & Wildlife Algae & Water (cr) ..... Jan. 28
Northeast Utilities Company, Rights-of-Way, The New Look by Harold F. Pomeroy (fa) ..... Oct. 10
Nunes Forms New Company, Not Merger (ns) ..... Jan. 29
Nunes Turfgrass Sods Willard Park (ns) ..... July 41
Nunes Turfgrass Win Best Commercial Display (ns) ..... July 40
Nursery Industry, A "Fantastic Future" (c) ..... Mar. 10
Nurserymen, American Assn. of (c) ..... May 10
Nurserymen, American Association of (c) ..... May 10
Nurserymen, American Association of, Landscape Outlook (ns) ..... Feb. 34
Nurserymen, American Assn. of, 96th Annual Convention Report (cr) ..... Sept. 28
Nurserymen and Growerss Assn. (Florida) Officers For 1972 ..... Aug. 24
Nurserymen, Florida, Present Award Program (cr) ..... Aug. 24
Nursery Plants Acorns From Famous Tree (ns) ..... Jan. 22

Issue Pg.

O

Occidental Chemical Named Marketing Agent For Cutrine (ns) ..... July 39
Ohio Turfgrass Conference, Legal Era of Pesticides, Sorry State of Morale, Pre-Emergence Crabgrass Herbicides (cr) ..... Feb. 40
Ohio Turfgrass Foundation, New Officers (cr) ..... Apr. 39
Ohio Turfgrass Foundation, Scholarship Winners (cr) ..... Apr. 39
Ohio Turf Show To Be Held In Cleveland (ns) ..... Nov. 35
Oil-Dri Files For Patent To Pelletize Clay Waste (ns) ..... Oct. 24
Oregon Chewings Fescue and Creeping Red Fescue Commissioni Oregon Orchardgrass Commission, Conduct Seed Tour (fa) ..... Aug. 20
Ornamentals, Weed Science Society Reports ..... Apr. 31
Ohio's Worst Nursery Pest (ns) ..... Jan. 37

P

Parathion, USDA Announces Measure To Prevent Mishaps (ns) ..... Jan. 30
Parks and Recreation, Society, Code of Ethics Opinions (L) ..... June 40
Park Director's Five Problems, Floridian Cities, Florida Nurserymen and Growers Assn. by Ruth Stuart Allen (cr) ..... Jan. 36
PCB's In the Environment (ns) ..... Nov. 34
Pennstar, and Joe Duich, The Story Behind (fa) ..... Jan. 8
People, Young, Why You Should Get Hip To (ed) ..... May 7
Pest Control Program, Biological (c) ..... Feb. 14
Pest Control, Soil Effects From Nitrogen Sources, Fertigation, Florida Research (fa) ..... Mar. 32
Pesticide Applicators Assn. (International), Seattle Conference by Lew Sefton (cr) ..... Nov. 17
Pesticide Applicators, NW, Go International (ns) ..... May 50
Pesticide Applicators, Pacific Northwest Assn. We Have a Cause—Your Cause (ns) ..... Feb. 38
Pesticide Applicators, Pacific Northwest Assn., Controlling and Using A Safe Environment (ns) ..... Feb. 38
Pesticide Applicators—Spray-O-Rama—Meet In Seattle (ns) ..... Aug. 29
Pesticide Behavior, Soil Often Holds Secret (ns) ..... June 35
Pesticide Bill, New Look of (c) ..... Oct. 8
Pesticide Bill, General Support of (c) ..... May 10
Pesticide Development, A Crossroads of (c) ..... Feb. 12
Pesticide Lab, A National, Calif. Weed Conf. (cr) ..... Mar. 62
Pesticide Labels, Illinois Study Tells How To Improve (ns) ..... Jan. 30
Pesticide Legislation—Just Where Are We Headed (fa) ..... June 16
Pesticide Legislation, Virginia Turfgrass Conf. (cr) ..... Apr. 40
Pesticide, New Bill (c) ..... Mar. 10
Pesticide, Non-Crop Bans (c) ..... Sept. 8
Pesticide Reports To Be Speeded (c) ..... Sept. 8
Pesticide Residues, Mistaken Identity (c) ..... Mar. 14
Pesticide Sales, Companies Spend Heavily For Registration and Monitoring (fa) ..... July 24
Pesticide, Shocking d-Con ad (ns) ..... Aug. 50
Pesticide, Slow Release Via Rubber In Research (ns) ..... Oct. 42
Pesticide, What's A (fa) ..... June 42
Pesticides and the People-to-People Approach (er) ..... Mar 8
Pesticides, A Subtle Change In Public Attitudes On (c) ..... Feb. 12
(Pesticides), Cancellation and Suspension—What's the Difference (ns) ..... June 17
Pesticides, Elegant Tools But Poor Craftsmen (c) ..... Mar 12
Pesticides, 'Legal Era,' Ohio Turfgrass Con. (cr) ..... Feb. 40
(Pesticides), No Imminent Hazard To Public Health (c) ..... Apr. 12
Pesticides, Soil/Water Study (c) ..... Sept. 8
(Pesticides), Surfactants by David E. Bayer (fa) ..... Oct. 18
Pests, Nursery, Ohio's Worst (ns) ..... Jan. 37
Pests, Plant, 129 Per Day Were Stopped (c) ..... Feb.. 14
Pests, Turf, Here's How To Whip Selected (ns) ..... May 44
Pine Tree Rinse (fa) ..... Aug. 11
Planning For An Irrigation System by the American Association of Vocational Instructional Materials (br) ..... Nov. 30
Plantings, Direct, For Highway Rights-of-Way by H. W. Everett (fa) ..... June 12
Plant Kingdom, The, by Ian Tribe (br) ..... Jan. 17
Pollutants, A 72-Year-Old Law Is Just Now Cutting Its Teeth (c) ..... Feb. 14
Pollution, Air, Damage Costs (c) ..... May 12
Pollution, More $'s For Clean-Up (c) ..... June 10
Pollution, Pine Tree Rinse (fa) ..... Aug. 11
Pollution, Rights-of-Way, The New Look, by Harold F. Pomeroy (fa) ..... Oct. 10
Precisoin Chipper Corp. Will Construct New Headquarters (ns) ..... Nov. 28
Price, Alvin, The Contract Applicator In Industrial Weed Control (fa) ..... Sept. 11

R

(Research), Companies Spend Heavily For Registration and Monitoring (fa) ..... July 24
Research—Using Available Tools, Aquatic Weed Control by Andy L. Price (fa) ..... July 13
Revegetation Techniques (c) ..... Mar. 14
Rights-of-Way, The New Look by Harold F. Pomeroy (fa) ..... Oct. 10
Ripper, Carl, The Contract Applicator In Commercial Turf (fa) ..... Sept. 11

S

Sabre Saw Expands—Builds New Niagara Falls Plant (ns) ..... June 28
Safety, Herbicide, An Attack On Ignorance and Carelessness by Dr. Blair Bailey (fa) ..... Nov. 11
(Safety), Motor Carrier Regulations (c) ..... May 12
Scotts, O. M. & Sons, "Fly-In" Seminar (ns) ..... Jan. 31
Seed For Sod Quality, an Industry View by Doyle W. Jacklin (fa) ..... Oct. 36

Issue Pg.

(Seed), How Merion Bluegrass Was Promoted to Number 1 by Margaret Herbst (fa) ... Jan. 20
Seeding, A Golf Course, "Copter"' (faf) ... Feb. 24
(Seed), Jacklin Seed Co., Give Fylking Top Rating (ns) ... June 27
Seed Mixtures, For Highway Rights-of-Way, Direct Plantings by H. W. Everett (fa) ... June 12
Seed Standards, State of Washington (ns) ... July 42
(Seed), The Story Behind Joe Duich and Pennstar (fa) ... Jan. 8
Selection and Maintenance, The Highway Tree (fa) by Robert A. Bartlett (fa) ... Aug. 13
Shaw Heads Florida Spraymen's Assn. (ns) ... Jan. 30
Sod & Soil Specs Published by New England Producers (ns) ... May 58
Sod, Cal-Turf Announces New Blend (ns) ... Jan. 26
Soderstrom, Jack, Tells How To Install Irrigation By Saber Slice (fa) ... Apr. 16
(Sod Farm), Watching Costs (fa) ... Feb. 18
(Sod), How Merion Bluegrass Was Promoted To Number 1 by Margaret Herbst (fa) ... Jan. 20
(Sod Industry), Canadian Sod Giant (fa) ... Nov. 19
Sod Pricing Policy, Chief Industry Need (fa) ... July 40
Sod Producers, American, Announce Post-Meeting Report (cr) ... Sept. 35
Sod Producers, Amercian, Plan Farm and Research Tour (ns) ... June 26
Sod Research/Field Tour, Growers Visit Mich. (cr) ... Aug. 40
Sod, Seed For Quality, An Industry View by Doyle W. Jacklin (fa) ... Oct. 36
Sod Webworms, Here's How To Whip Selected Turf Pests (ns) ... May 44
(Sod), Why We Developed the Big Roll System by Martin Beck (fa) ... Oct. 26
Soil & Sod Specs Published by New England Producers (ns) ... May 58
Soil Conservation Service Announces Specialty "Conservation Grasses" (ns) ... May 53
Soil Effects From Nitrogen Sources, Fertigation, Pest Control, Florida Research (fa) ... Mar. 32
Soil Often Holds Secret of Pesticide Behavior (ns) ... June 35
Soil Seal Concentrate Accepted by Gov't Buyers (ns) ... Aug. 28
Soil Test Method, New, Penn State Developing (ns) ... July 50
Skyworker Names Western Distributor (ns) ... Aug. 28
Sports Foundation, Inc., Annonnce Gold Medal Award Winners (cr) ... Apr. 50
Spraying, Mechanics of, Aquatic Weed Control by Frank L. Wilson (fa) ... July 16
(Sprinkler Systems), Irrigation by Saber Slice, Jack Soderstrom Tells How To Install (fa) ... Apr. 16
Spruce Budworm, The (c) ... May 12
Strip Method, The, Aquatic Weed Control by L. E. Bitting, Sr. (fa) ... July 14
Strip-Mining, What Plants Are Best To Heal Wounds Of by Ralph Branson (fa) ... May 34
Suburban Propane Gas Corp., Flame Weeding (fa) ... Apr. 22
Sulphur For Turfgrass Says Expert (ns) ... Apr. 53
Surfactants by David E. Bayer (fa) ... Oct. 18
Suspension, Cancellation—What's The Differecne (ns) ... June 17
Swimtrine, Algicide Receives USDA Registration (ns) ... Apr. 58

T

Tandex (FMC) Registered As Brush Control (ns) ... Aug. 45
Tersan, DuPont Co. Announces Fungicide (ns) ... Apr. 43
Tennessee, Univ. of, Short Course Turfgrass Management (ns) ... May 51
Thatch, Biological Control of Under Study In Connecticut (ns) ... Jan. 27
Thompson-Hayward To Market Bromo-Kil D, Chemical Weed Control (ns) ... June 28
Toro Purchases Viking Corporation (ns) ... June 15
Tree Are Excellent Environment Purifiers (ns) ... June 32
Tree Care Business, Words of Wisdom From a Winner by Howard F. Harvey Jr. (fa) ... June 8
Tree Care, The Contract Applicator, In (fa) ... Sept. 11
Tree Care, Let's Put the Care Back Into by Lou Speer ... Feb. 30
Tree Care Standards Published by National Arborists (ns) ... July 28
Tree, City Ordinances Needed For Urban Protection (ns) ... Oct. 25
Tree, Highway, The, Selection and Maintenance by Robert A. Bartlett (fa) ... Aug. 13
Tree Injection, Deep Root, New Formula May Open Door (fa) ... Aug. 18
Tree Injection, New Concept (ns) ... June 30
Tree Injection, The Widening Potential of by Del Kennedy (fa) ... Nov. 15
(Tree), International Shade Tree Conference Report, The 47th Annual at Montreal (cr) ... Sept. 20
(Tree), Kapok, National Arborist Assn. Meet. (cr) ... Apr. 34
Tree Planting, Herbicides Best For by Gordon R. Cunningham and Gavin G. Weis (fa) ... Mar. 18
Tree Sling For Big Trees (ns) ... Aug. 43
Tree, To Trim Artistically (fa) ... Apr. 24
(Trenchers), Ditch Witch, Industry Innovator (fa) ... Oct. 34
Trex-San, Mallinckrodt Announces (ns) ... Apr. 43
Turf, Artificial, Is Hot Say Agri. Engineers (ns) ... Aug. 37
(Turf), Baton Twirlers and Golfers by Donald McGuiness (fa) ... July 20
Turf Coloraat, Cal-Turf Introduces New (ns) ... Feb. 37
(Turf), Fescues, Fine, Lawngrass Extradordinary by Dr. Robert W. Schery (fa) ... Jan. 16
Turf Foundation, Midwest Regional Meeting At Purdue (cr) ... May 60
Turf, In Commercial, The Contract Applicator (fa) ... Sept. 11
Turf Maintenance, Large-Scale, Care and Cost by Joseph J. Bazzani (fa) ... Nov. 8
Turf Pests, Here's How To Whip Selected (ns) ... May 44
Turf Specialists Recommend Lawn Grass Mixtures (ns) ... July 47
(Turf), The Story Behind Joe Duich and Pennstar (fa) ... Jan. 8
Turfgrass Association (Southern), Spring Show (cr) ... June 35
Turfgrass Culture, Principles Of by John H. Madison (br) ... Apr. 20
Turfgrass Industry, National Annual Expenditure (ns) ... June 31

Issue Pg.

Turfgrass, Michigan Announces Ratings (ns) ... Sept. 35
Turfgrass Pests, by Univ. of Calif. (br) ... May 57
Turfgrass Research Conference, First National, Proceedings Available (ns) ... July 47
Turfgrass School, Commercial, Opens at Hickory, N.C. (ns) ... Nov. 18
Turfgrass Seed and Fertilizer Bidding Specifications by William E. Knoop (fa) ... Oct. 14
(Turfgrass), Sulphur, Says Expert (ns) ... Apr. 53
2,4,5-T Hearings Set For Fall (c) ... Sept. 8

U-V

U.S. Borax & Chemical Co., Maintain Succcess Boosting Growth Retardants by Gordon K. Harris, G. Burke Garrette and David O. Anderson (fa) ... Mar. 20
USDA Is Computerizing (c) ... Apr. 14
Up In A Down Year (ed) ... Feb. 8
Urban Travel Can Be Expected To Increase (c) ... Mar. 10
Van Wormer, H. M., President-elect International Shade Tree Conference (cr) ... Sept. 20
(Vegetation Maintenance), Tale of Two Cities' Airpors (fa) ... May 18
(Vegetation), What Plants Are Best To Heal Wounds Of Strip-Mining by Ralph Branson (fa) ... May 34
Vehicle, Slow-Moving Emblem Mandatory (c) ... Aug. 8
Virginia Turfgrass Conf., 11th Officers (cr) ... Apr. 40
Virginia Turfgrass Council Discusses the Turf Manager and the Ecosystem (cr) ... Apr. 40

W-X-Y-Z

Warren's Turf Seeking Franchises (ns) ... Feb. 36
Washington, State Of, Seed Standards (ns) ... July 42
Water Encyclopedia, The, Edited by David Keith (br) ... Oct. 40
Water, Foul, Algicide or Algistat To Clear Up (ns) ... Jan. 37
(Water), Golf Course Irrigates With 'Used Water' (fa) ... May 38
Water Resources Congress, Keynote Statement Reprinted (c) ... July 8
Water Well Manual by Ulric P. Gibson and Rexford D. Singer (br) ... Aug. 48
Water Without Chemicals (ed) ... July 6
Weed Control Conference, North Central, Pesticides & Wildlife Algae & Water (cr) ... Jan. 28
Weed Control, Flame Weeding (fa) ... Apr. 22
Weed Control, 400 References For (fa) ... Mar. 88
Weed Control, In Industrial, The Contract Applicator (fa) ... Sept. 11
Weed Control Programs, Long Range, For Improved Environment by Leo Miles (fa) ... July 22
Weed Control, The Perfect Broadleaf, Is It Possible? by J. S. Skaptson (fa) ... Aug. 16
Weed Reference, Circular Outdated (L) ... May 52
Weeds, Hothouse For—Asphalt Parking Lots (fa) ... Nov. 12
Weed Science Society, 11th Annual Meeting ... Apr. 26
Weed Science Society, New Officers (cr) ... Apr. 26
Weed Science Society (Northeastern) New President, Dr. George H. Bayer (cr) ... Feb. 47
Weed Science (Southern) Society Meets Jan. 18 (ns) ... Sept. 41
West Virginia Agricultural Experiment Station Research Agreement (c) ... Oct. 8
Whitegrubs Wireworms, Here's How To Whip Selected Turf Pests (ns) ... May 44
Wilsco Foamspray Now Readily Available (ns) ... Oct. 24
Wisconsin Trials Indicate Best Herbicides For Tree Planting by Gordon R. Cunningham and Gavin G. Weis (fa) ... Mar. 18
Woody Plants, Crown Gall of by Dr. W. K. Hock (fa) ... June 20
Zectran, Dow Chemical's Insecticide Registered (ns) ... June 10

AUTHORS

Allen, Ruth Stuart, "Floridian Cites Park Directors' Five Problems" ... Jan. 36
Anderson, David O., "Maintain Success Boosting Growth Retardants," with Gordon K. Harris and G. Burke Garrette ... Mar. 20
Bartlett, Robert A., "The Highway Tree, Selection and Maintenance" ... Aug. 13
Bayer, David E., "Surfactants" ... Oct. 18
Bailey, Dr. Blair, "Herbicide Safety, An Attack On Ignorance and Carelessness" ... Nov .11
Bazzani, Joseph J., "Large-Scale Turf Maintenance—Care and Costs" ... Nov. 8
Beck, Martin, "Why We Developed the Big Roll System" ... Oct. 26
Bitting, L. E., Sr., "The Strip Method" ... July 14
Branson, Ralph, "What Plants Are Best To Heal Wounds of Strip-Mining" ... May 34
Cunningham, Gordon R., "Best Herbicides For Tree Planting" ... Mar. 18
Daniel, W. H., "Athletic Field Maintenance—Timing Is Critical" with Melvin J. Robey, "More Useable Space For the Practice Field" With Melvin J. Robey ... Sept. 16
Eckhoff, Harry C., "Golf Outlook," "Municipal Golf, Its Role In the American Golf Scene" ... Jan. 10
Everett, H. W., "For Highway Rights-of-Way, Direct Plantings" ... June 12
Gallagher, John E., "An Industry Grows" ... July 12
Garrette, G. Burke, "Maintain Success Boosting Growth Retardants" With David O. Anderson and Gordon Harris ... Mar. 20
Harris, Gordon K., "Maintain Success Boosting Growth Retardants" with G. Burke Garrette and David O. Anderson ... Mar. 20
Harvey, Howard F., Jr. "Tree Care Business, Words Of Wisdom From A Winner" ... June 8
Herbst, Margaret, "How Merion Bluegrass Was Promoted to Number 1" ... Jan. 20
Hock, Dr. W. K., "Grown Gall of Woody Plants" ... June 20
Howland, Joseph E., "Ecology—It Won't Go Away" ... Sept. 39
Ingalsbe, Gene, "Environmental Protection Agency" ... Mar. 16

Certainly, Any Time

As part of our educational program for the Superintendents of School Grounds, I would like to distribute your excellent article, "More Useable Space for the Practice Field" that appeared in the September 1971 issue.

I would appreciate it if you would grant me permission to reprint this article.

Thank you for your consideration in this matter. WALTER J.G. CARPENTER, Cooperative Extension Agent, Nassau County, N.Y.

We Are Complimented

As a member of the New York State Arborists Assn. Inc. I greatly enjoy your monthly publication of WEEDS TREES and TURF. I always find many informative articles in and keep the publication for reference in my office. In your October issue there is a very fine editorial, "The Association Crisis."

In January of 1972, the 9 thru the 12th, we are having our Convention at the Nevele Country Club at Ellenville N.Y. This article is very timely and we would like your permission to print the article in its entirety giving due credit to your organization.

We hope to reach many of the people who say "Leave it to George" to try to increase the membership of our Assn. We expect to include a copy along with the meeting notices that are going out to the membership and their friends along with other interested people.

Thank you for your consideration for this request. WALTER STURMER, A-B-C Tree Service, Inc., Yorktown Heights, N.Y.

Quality Seed Issue

Your October 1971 issue was of particular interest to members of the turf seed industry.

Wm. Knoop wrote on Turfgrass Seed Specifications for Tender Bidding — then we read Doyle Jacklin's article on Sod Quality Seed. There is a certain paradox herein the discussions put forth on qualities of Poa Pratensis — Kentucky Bluegrass.

Mr. Knoop's example of 85 purity, 80 germination minimum standards for Kentucky Bluegrass carries with it the power of suggestion. Mr. Jacklin on the other hand, describes the ultimate which is available. Seed buyers should be aware that within these two poles lie a multitude of intermediate qualities. The 85/80 quality is just about the bottom of the ladder. Seed buyers too, should be aware of the fact that often a low purity lot also contains a high proportion of lightweight seed — seed which will germinate on a germinator's blotter but just will not have the guts on a gravelly roadside to take hold after germination. A sod grower who expertly chooses and prepares his land, could make this poorer seed grow—the areas where tender bought seed is sown is often a very hostile host for new seedlings.

I wholeheartedly agree with Mr. Jacklin—sod growers cannot take the risk of buying any seed but the best. However, I strongly believe that municipal and institutional seed buyers should also be encouraged to closely examine the qualities available to them and perhaps a few extra dollars spent on a better quality of seed will mean that the job won't need reseeding the next season.

Keep up the good work — your articles are both interesting and stimulating. MARTIN C. PICK, Otto Pick & Sons Seeds Ltd., Richmond Hill, Ontario, Canada.

Group Health Plan Valuable

It's been some time since Montreal and I've intended writing to you long before this just to tell you how much I enjoyed having dinner with you and others in Montreal.

Carl Raw, my supervisor, has come to me twice now with "Weeds, Trees and Turf." in hand and says, as he points to a story you've written: "Bill, look at this. In the last issue your friend talked about liquid feeding being something new and you've been doing it for 14 years." And in our September issue that fine story on Dinsmore's operation revealed something else we also do, coffee and donuts for the men in the morning before they leave for work. Yes — they seem to like it.

I've tried something else that just may be helping keep one or two of my good men around a wee bit longer — Group Hospitalization. Hold it, Arthur, before you comment. We go one wee bit further than most others because we pay the **entire** premium for each man, not just a small portion as many do. I do believe it helps a great deal and already it's paid off handsomely for one of the men's family.

We've been experimenting, Art, and it has paid off.

We can now keep trees from having blossoms with no harm to the foliage. How about that?

We could run into problems but to date we are happy as can be with our new found knowledge that we generated through our own efforts and experiments.

I'll write to "Denny" now to tell him what a good job you did for him.

Art, it's always nice to see you. Warm wishes to you for bigger and better things to come. W. K. "BILL" JOHNSON, Badger Tree Service Inc., Phoenix, Ariz.

Author's Index (continued)

	Issue Pg.
Jacklin, Doyle W., "Seed For Sod Quality, An Industry View"	Oct. 36
Kennedy, Del, "The Widening Potential of Tree Injection"	Nov. 15
Kerr, Cecil F., "How To Foul Up A Herbicide Program"	Feb. 28
Knoop, William E., "Turfgrass Seed and Fertilizer Bidding Specifications"	Oct. 14
Keshen, Albert, "Golf Courses Irrigates With 'Used' Water"	May 38
Maples, Palmer, Jr., "For Golf Course Superintendents, Professional Certification"	Sept. 18
Markstein, David L., "What Will You Do . . . If Wage-Price Control Comes?"	Mar. 28
McGuiness, Donald, "Baton Twirlers and Golfers"	July 20
Miles, Leo, "Long Range Weed Control Programs For Improved Environment"	July 22
Mott, Elmer, "Why I Believe In Flail Mowers"	June 18
Pomeroy, Harold F., "Rights-of-Way, The New Look"	Oct. 10
Price, Andy L., "Aquatic Weed Control, Using Available Tools"	July 13
Robey, Melvin J., "Athletic Field Maintenance" with W. H. Daniel, "More Useable Space For the Practice Field" with W. H. Daniel	Sept. 16
Schery, Dr. Robert W., "Lawngrass . . . Extraordinary, Fine Fescues"	Jan. 16
Sefton, Lew, "National Attendance At Seattle Applicator Conference"	Nov. 17
Skaptason, J. S., "The Perfect Broadleaf Weed Control, Is It Possible?"	Aug. 16
Smith, Ron, "How To Evaluate A Fertilizer Bid"	Apr. 18
Speer, Lou, "Let's Put the Care Back Into Tree Care"	Feb. 30
Stemm, Richard A., "Don'ts and Do's In Client Relations"	Oct. 20
Weis, Gavin G., "Best Herbicides For Tree Planting"	Mar. 18
Wilson, Frank L., "Mechanics of Spraying"	July 16

Edward K. Hertel

FMC's Hertel Elected NACA Board Chairman

New Chairman of the Board of the National Agricultural Chemicals Association is Edward K. Hertel, manager of FMC Corporation's Niagara Chemical Division, Middleport, N. Y. Hertel also serves as vice president of FMC Corporation. His NACA election also included a 3-year term on the NACA board of directors.

Prior to his election as chairman, Hertel served on the NACA board, the policy advisory committee, executive committee and the finance committee.

NACA is a trade organization representing formulators and manufacturers of pesticides. More than 30 major companies are members.

HISTORIC OCCASION . . . 19th Annual American Association of Nurserymen Landscape Awards Program presentation ceremonies were held in the East Garden of the White House, October 19. Mrs. Richard Nixon served as honorary chairman, and is seen here with AAN President Joseph H. Klupenger (left), and, introducing the First Lady, AAN Executive Vice President Robert F. Lederer.

THE NEW LOOK IN HEAVY DUTY COMMERCIAL MOWERS

GOODALL FOR THE '70'S

GOODALL SELF-PROPELLED

Easy handling, professional design, finger tip power steering and turning, comes in 21", 28", 36" and big 52" cuts ups to 8 h.p. engine.

GOODALL PUSH MOWER

Rugged, unbreakable steel handles, available in 19", 20", 22" cuts, engine comes in 3.5 or 5.0 h.p.

GOODALL EDGER-TRIMMER

Unbreakable steel handles, 3 h.p. engine, steel wheels on ball bearings. 10" cut.

THE TRUE PROFESSIONAL LINE

GOODALL

Manufactured by BUNTON CO. WT-170

For information, write GOODALL DIVISION
4303 Poplar Level Road, Louisville, Kentucky 40213, Phone 502/459-3810

Yard-Man Div. Purchased

Montgomery Ward has acquired the former Yard-Man division of The Leisure Group, Inc. Yard-Man is headquartered at Jackson, Mich., with manufacturing facilities at both Jackson and Sullivan, Ill. The company makes power lawn mowers, riding mowers, tractors, tillers, snow throwers and leaf removal equipment.

Yard-Man which has been a major supplier of Montgomery Ward for a number of years will be organized as a wholly-owned subsidiary and will continue operations under current management. George West, vice-president and general manager, will head the management team according to an announcement by Montgomery Ward.

Northwest Hort Show Changes Dates to Jan. 27

The Northwest Horticultural Congress has changed dates for their Northwest Agriculture Show '72 to January 27-29. The event was set back one day to allow exhibitors to set up displays at the Memorial Coliseum at Portland, Ore. Some 25,000 persons are expected to attend.

Besides the 100,000 square feet of exhibits, the show features a number of educational programs. The Oregon Horticultural Society, Oregon Holly growers, and other groups hold annual meetings in conjunction with the event.

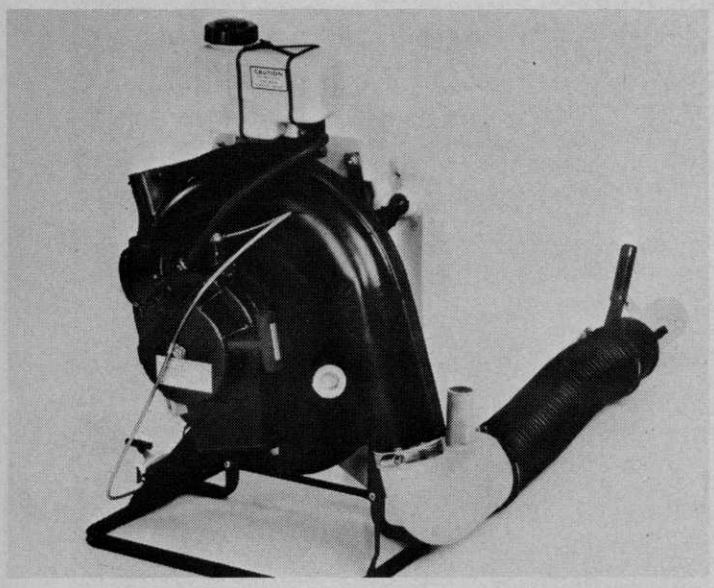
Six sections of Oregon State University's ornamental short courses are presented during the show. These include the turf managers program, nursery program, spray applicators section, landscape program, flower growers section, and holly growers section.

Shaw Named President of Florida AAN

Joseph C. Shaw, Shaw Nursery and Landscape Co., South Miami, who is due to step into the presidency of the 1400-member Florida Nurserymen and Growers Association next Spring, added another responsibility by accepting the leadership of the Florida Chapter, American Association of Nurserymen, at its annual meeting held during the recent FNGA Trade Show-Short Course in Hollywood-By-The-Sea.

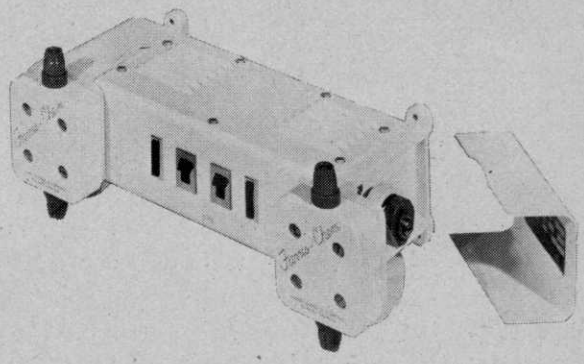
He has just completed a year as president of the Horticultural Spraymen's Association.

Others elected to the state AAN chapter are: Bill Brook, Dania, vice president; and Lawrence Clements, Bartwo, sec.-treas.



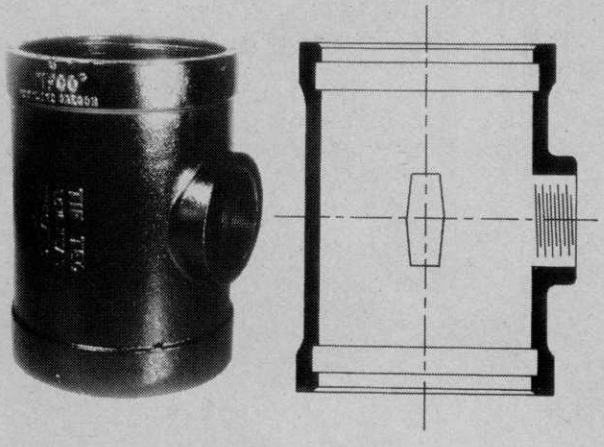
AIR SWEEP: Curtis Dyna-Products Corp., Westfield, Inc.

For sweeping all kinds of trash, leaves and other debris. Handles heavy, bulky objects such as bottles and cans. Ideal for cleaning up ballparks, stadiums, picnic areas, parking lots and side walks; feather weight and high horsepower. Available in two backpack models. One model has 30 gal. tank and valving for adding just enough water to keep down dust or for washing down walls and pavement with detergent in water. Also available in 2-wheel trail-behind model. For more information, circle (701) on the reply card.



SOLUTION FEEDER: Farris Chemical Co., Inc., Knoxville, Tenn.

Series 125 diaphragm chemical feeder developed to meet requirements for variety of chemical solutions and applications. Designed to operate at pressures up to 150 psi. Mechanically linked teflon diaphragm, white PVC solution head, air-cooled gear motor equipped with long-life bearings requiring no lubrication. Available in 2 feed rate models either as simplex or as duplex. Shipped complete with strainer, injection point fitting, 15 feet of suction and discharge tubing, complete with instruction and parts manual. For more information, circle (702) on the reply card.



IRRIGATION COUPLINGS for PVC/IPS Plastic and Steel Pipe: The Independent Fitting Company, Portland, Ore.

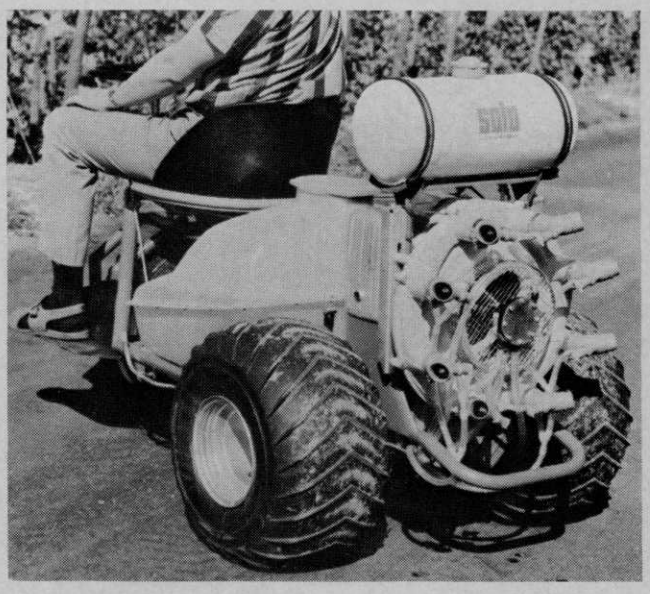
Installers of 4", 6" and 8" PVC/IPS plastic and standard steel pipe in low-head irrigation systems will benefit from the new line of light weight TIF-TEC low-head irrigation tapped couplings recently announced by the Independent Fitting Company. Developed especially for use with PVC/IPS pipe where pressures are generally limited to 100 psi or less, the new coupling has a lighter wall than is required to meet municipal waterworks specifications. The TIF-TEC low-head coupling is intended primarily for farmland irrigation systems. For more information, circle (703) on the reply card.

INDUSTRIAL VACUUM: Billy Goat Industries, Grandview, Mo.

Trash pick-up ability equal to higher powered units is claimed for 3½ hp outdoor vacuum. Model Kd 35 is recommended for quick clean-up of all lawn debris including leaves, thatch, twigs, grass clippings, paper and other litter. Designed for maximum flow of air from suction snout through impeller chamber to bag. A 26" snout has 5 height settings to adapt pick up to any surface from concrete to thick turf, and to all degrees of bulkiness in the litter. An optional flexible hose, 10' long, quickly snaps in place for cleaning shrubbery and other hard to reach places. For more information, circle (704) on the reply card.

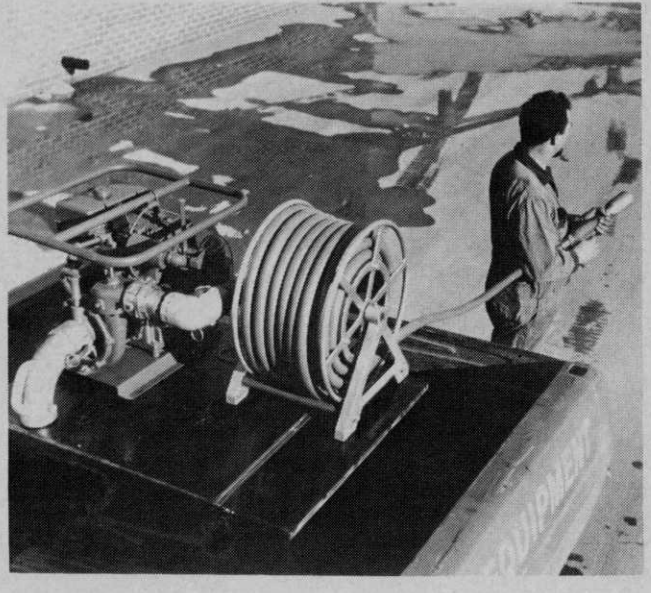
TANKS AND CONTAINERS: Raven Industries, Inc., Sioux Falls, S. Dakota

New line of all purpose Rhino tanks and containers are made of either high or low density polyethylene. Uniform, rugged and economical. Suitable for countless purposes and built to withstand constant hard use. Available in stock sizes or custom produced to exact specifications. Also available is a stock nesting model which reduces storage space and freight costs. For more information, circle (705) on the reply card.



ALL-TERRAIN MIST BLOWER: Solo, Burlington, Ontario

Barely 38 in. wide is a new small tractor-type mist blower made by Europe's Solo engine company. Riding-type high-concentrate airblast unit operates in rough or muddy terrain and on steep slopes. Powered by 220-cc. two-cycle engine, with two forward and two reverse speed gears. Plastic concentrate tank holds 32 U.S. gallons — the equivalent of up to 350 gallons of regular sprayer formula. Air velocity regulated by gear shift and throttle to more than 200 mph. Effective spread beyond 50 feet. For more information, circle (706) on the reply card.

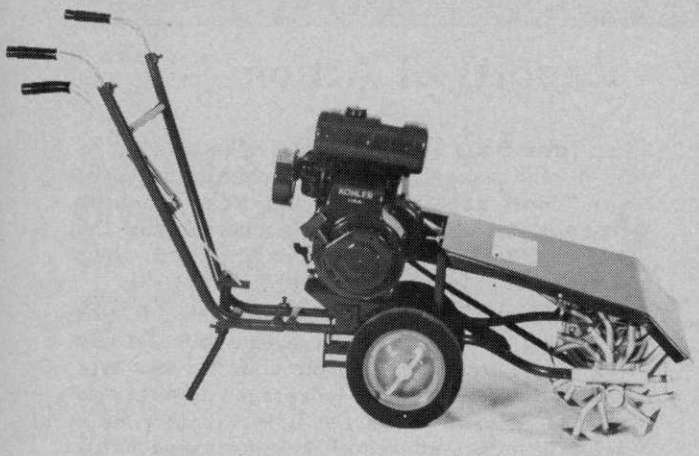


LIVE-WINDING REEL: Nordic International, Port Credit, Ontario, Canada

Reel handles up to one-inch air, water, oil or chemical hose under pressure while turning, yet is economic enough for a wide range of industrial and maintenance applications. H-70 model has live swing joints and 20-inch diameter, permanent-moulded, high strength aluminum heads that will accommodate up to 100 feet of one-inch hose; double that length of half-inch hose. Model H-71 with 23-inch head will take fifty percent more hose length. Both models have hand rewind by turning the head; finger-tip brake and lock device and crank handles are optional. For more information, circle (707) on the reply card.

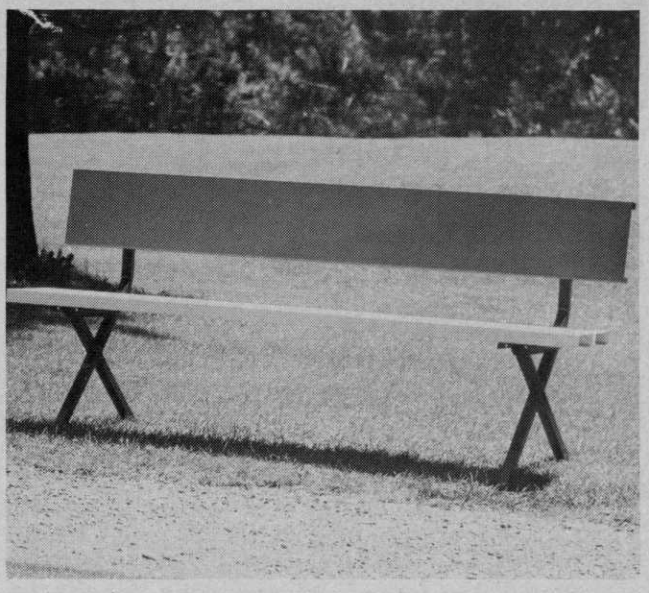
MINI-DUNE BUGGY LAWN MOWER: HEMCO Corporation, Independence, Mo.

Mini-Dune Buggy has 32" synchronized twin blades for super smooth cutting action (detachable belly mower unit) adjustable cutting heights. Electric key start with headlights, tail lights, cigarette lighter, 12 volt battery, ammeter, voltage regulator and alternator to charge battery. Special 8 HP 4 cycle Briggs & Stratton chrome engine. Engine controls on dash. Heavy duty geared transmission, 3 speed forward, reverse and neutral with a chain drive. Complete line of accessories. For more information, circle (708) on the reply card.



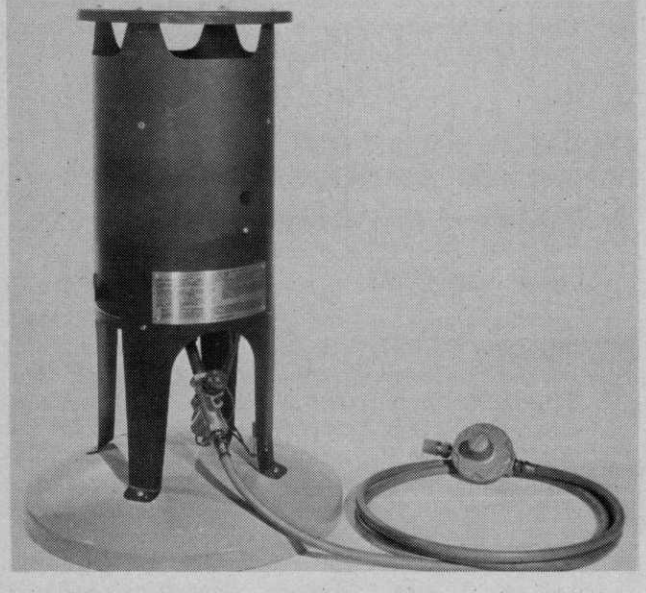
SELF-PROPELLED HOEING MACHINE: Auto Hoe, Inc., DePere, Wis.

"Auto-Hoe" is self-propelled hoeing machine, custom built as a hoe with power and sturdy enough to dig any type soil a pick will, yet simple in its use. Depth adjustable, tills up to 6 inch depth and hoes a minimum of ¼" depth, and can be used to hoe weeds, cultivate, mulch, spade and till the soil. Rugged, perfectly balanced, low to the ground, light in weight, and comes in four models, fully factory warranteed. Illustrated is Model 36-C for commercial users. For more information, circle (709) on the reply card.



NEW STEEL BENCH: Standard Mfg. Co., Cedar Falls, Iowa

All-steel tee bench with formed 16-gauge steel backs and seats with a new plastic finish that envelopes the metal parts and is completely bonded to the steel. Plastic coating reduces chipping or peeling. Reflective quality and insulating ability of the coating keeps metal cool in the sun. Steel benches are available in yellow, red or avocado to match the colored ball washers and consoles available from Standard. Unique assemble of the back and seat eliminates any unsightly bolt heads or nuts. Seat and back, 10 inches wide and 72 inches long. Wt. 70 lbs. For more information, circle (710) on the reply card.



LP GAS HEATER: Stone Construction Equipment, Inc., Honeoye, N. Y.

LP Gas Heater model LP-100 with 100,000 BTU/hr. capacity. Rugged unit has all UL listed safety controls and features patented tip-over safety switch. Safety switch automatically shuts off the gas to the heater if accidentally tipped over. Unit shipped completely assembled and ready to use with hose and regulator included. Sells for $89.50, F.O.B. Honeoye. For more information, circle (711) on the reply card.

PROTECTIVE TREE BANDAGE: Hermell Products, Hartford, Conn.

Revolutionary new protective tree bandage is 36" x 6" roll of adhesive backed foam. Helps to prevent winter damage to the trunk of tree caused by freezing and thawing, as well as preventing sun-scald in the summer and insects such as bores which will attack weakened trees. Maker says a good insurance item for protection of young trees and also aids in protecting wounds on older trees. Adhesive backing allows it to be cut in various shapes to be applied to tree without tie. For more information, circle (712) on the reply card.

INDUSTRY ASSOCIATIONS IN 1972

New Officers, New Programs – Reports of Action

AMERICAN ASSOCIATION OF NURSERYMEN, INC

230 Southern Bldg., 15th & H N.W.
Washington, D.C. 20005
Tel. (202) 737-4060

Robert F. Lederer, Executive Vice-President

Officers & Directors for '72: Joseph H. Klupenger, Pres., Klupenger's Nursery, Aurora, Ore.; Kenneth J. Altorfer, v.p., McKay Nursery Co., Waterloo, Wis.; Louis Hillenmeyer, Jr., Treas., Hillenmeyer Nurseries, Lexington, Ky.; Palmer Bigelow, Jr., Bigelow Nurseries, Northboro, Mass.; Harold S. Crawford, Willis Nursery Co., Ottawa, Kan.; L. J. Hilscher, Hilscher Nursery & Gard., Fort Worth, Tex.; Itsuo Uenaka, Cupertino Nursery, Inc., Cupertino, Calif.; Harold R. Nickel, Greenleaf Nursery Co., Muskogee, Okla.

Annual Meeting: July 15-19, 1972, Statler-Hilton Hotel, Washington, D. C.

Highlights of '71: Membership reached 1863, a rise in 5½ years of 520 member firms, a net increase of about 39%. In the area of legislation AAN has prepared at least 20 separate pieces of testimony for both sides of the Hill on agricultural appropriations, Forest Service appropriations, forest management, wage-hour legislation, pesticides legislation, Washington Youth Gardens appropriations, postal rate revisions, patent legislation, and others. A nationwide transportation survey taken of AAN members revealed the different types of transportation used and the order of preference has permitted the AAN to concentrate resources on transportation problems most important to the members. Some highlights of the past year were: an ICC decision forcing cancellation of a proposed surcharge on parcel post parcels over certain dimensions; forestalling action by the trucking industry to make a drastic increase in classification ratings on shipments of trees, shrubs, or vines exceeding a certain length; HRI production of a comprehensive shipping manual; securing a reduced classification rating on impregnated paper pots; successfully opposing proposals by the trucking industry to set a minimum weight of 20 pounds on all articles shipped; and there are others. The Horticulture Research Institute has completed three years work in development of the "Technical Glossary of Horticultural and Landscape Terminology." Pennsylvania State University and nine other associations contributed material. A new 60-page National Landscape Association "Landscape Designer and Estimator's Guide" was published this year. A new group, The National Association of Plant Patent Owners (NAPPO) this year became the fifth industry-related organization to join the AAN umbrella.

The Wholesale Nursery Growers of America continues to grow in membership (now 205) as one of the five, and in services. Newsletters and "New Idea Bulletins" have kept members up to date on new management and mechanization techniques. Most important step this year has been in helping members gain a new awareness of the need to understand labor unions and their activities.

Green Survival II, the new program for this year, has a great success on which to build. No single effort undertaken by our industry has ever received the enthusiastic coverage the nation's press has given to the Green Survival story. In a number of press conferences and interviews across the nation, Green Survival has been the primary interest for raido, T.V., garden writers, feature editors, and just plain news reporters.

Program Plans for '72 and Forecast: In brief, AAN will continue its major programming; all industry promotions will be stepped up; a cooperative advertising program will be started; a more retail oriented convention will be held; a stepped up landscape awards program is scheduled; and new services are being planned for all umbrella groups. Future for the AAN and associated groups is a "fantastic one' according to Executive Vice-President Lederer. All members have to do to participate in this future is to truly become businessmen, he says, and to study, read, and apply good business principles, at the same time taking advantage of the opportunities being defined by the associations.

AMERICAN SOCIETY OF CONSULTING ARBORISTS

12 Lakeview Ave., Milltown, N.J. 08850
Tel. (201) 821-8948

Dr. Spencer H. Davis, Jr., Executive Director

Officers and Directors for '72: George W. Goodall, pres., Goodall Tree Expert Co., Portland, Me.; Dr. L. C. Chadwick, pres.-elect, Chadwick Consulting, Columbus, O.; Walter P. Morrow, vice-pres., Consulting Arborist, Sewickley, Pa.; W. Roland Shannon, sec.-treas., Shannon Tree Co., Milford, Pa.; and directors, F. Earle Martin, Cedarvale Tree Services, Toronto, Ontario; Edwin E. Irish, Chas. F. Irish Co., Warren, Mich.; O. J. Andersen, Consulting Arborist, Houston, Tex.; and A. Murray Swanson, Consulting Arborist, Tucson, Ariz.

Annual Meeting: Feb. 17-19, International Inn, Tampa, Fla.

Highlights of '71: Shade tree evaluations highlighted and emphasized at annual meeting, after which the Society began an advertising program in national trade journals.

Program for '72: Annual meeting to deal with real estate and land evaluation as related to shade tree evaluations.

Forecast for '72: The present interest and emphasis throughout the country on "ecology" and on "environmental control," plus trade magazine advertising should bring about an increase in diagnoses, tree serveys, and tree planning, along with appraisals for the industry.

AMERICAN SOD PRODUCERS ASSOCIATION

College of Agriculture & Environmental Science, New Brunswick, N.J. 08903
Tel. (201) 247-1766 Extension 1453

Dr. Henry W. Indyk, Executive Secretary

Officers and Directors for '72: Tobias Grether, pres., Cal-Turf, Inc., Camarillo, Calif.; Jack Kidwell, vice-pres., J. L. Kidwell Landscape Corp., Culpeper, Va.; Willian Latta, sec., Latta-Scholes, Princeton Turf, Kansas City, Mo.; George Stewart, treas., Karandrew Turf Farms, Inc., Suffield, Conn.; and directors, Robert Daymon, Emerald Valley Turf Nurseries, Gregory, Mich.; Wiley Miner, Princeton Turf Farms, Hightstown, N.J.; Ben Warren, Warren's Turf Nursery, Palos Park, Ill.; Dale Habenicht, H&E Sod, Tinley Park, Ill.; and John Nunes, Nunes Turfgrass Nurseries, Inc., Patterson, Calif.

Annual Meeting: Late June or July, 1972 at Toronto, Canada to be hosted by the Nursery Sod Growers Association of Canada.

Highlights of '71: Membership up by 25%. Summer program conducted in Michigan consisting of sod farm tours and field day studying Michigan State University's extensive sod research program. National guideline specifications for sodding have been approved and will be printed for distribution. Development of a cost accounting procedure for sod producers has been approved and initiated.

Program for '72: Educational conference and equipment field day, Feb. 22-24. Headquarters will be Disneyland Hotel, Anaheim, Calif. Host site for field day is Cal-Turf Farms, Santa Ana.

Forecast for '72: The predicted housing boom that includes single family dwellings, garden apartments, and condominiums, all mean more lawn areas. The increasing interest in achieving instant results means a lot of activity for the sod business, closely associated with the building industry. The trend toward a shorter work week indicates more leisure time and consequently increased utilization of recreation facilities. Many of these recreational activities depend upon a good turf cover. Sod will play a major role in satisfying the need and demands for a suitable turf on recreation areas. Much of the glamour of synthetic turf as a panacea for natural turf on athletic areas may rapidly dwindle. Now that the synthetic turf covers are being exposed to the test of time, varying environmental conditions and intensive use, many of its problems are becoming increasingly evident. A declining interest in the installation of synthetic turf covers on athletic areas and a swing back to utilization of natural turf, and sod, particularly, is anticipated.

The sod industry must become better represented in its national as well as local sod producer organizations. It is through united effort by means of such organizations that the individual sod producer can stay abreast of new and rapid developments for the betterment of the sod industry.

GOLF COURSE SUPERINTENDENTS ASSOCIATION OF AMERICA

3158 Des Plaines Ave., Des Plaines, Ill. 60018
Tel. (312) 824-6147

Ben J. Chlevin, Executive Director

Officers and Directors for '72: Richard C. Blake, pres., Mt. Pleasant CC, Boylston, Mass.; Robert V. Mitchell, v.-pres., Portage CC, Akron, Ohio.; Clifford A. Wagoner, sec.-treas., Del Rio G&CC, Modesto, Calif.; Palmer Maples, director, The Standard Club, Atlanta, Ga.; Jerry M. Murphy, director, Somerset CC, St. Paul, Minn.; Charles G. Baskin, director, CC of Waterbury, Waterbury, Conn.; Richard W. Malpass, director, Riverside G & CC, Portland, Ore.; Paul E. Mechling, director, Sylvania CC, Sylvania, Ohio.

Annual Meeting: Feb. 13-18, 1972, Cincinnati Convention Center, Cincinnati, Ohio.

Highlights of '71: Instituted Certification Program for Golf Course Superintendents.

Program for '72: Regional workshops for golf superintendents to be instituted.

Forecast for '72: The "economic crunch" of the last 18 months has put golf course superintendents on their mettle—to produce the same high quality golf playing surfaces their members have grown to expect in the face of some budget cutbacks. They will have their work cut out for them again in 1972 until the Nixon "freeze" produces the expected effect on its overall economy. The golf course traffic is not expected to diminish—in fact it probably will increase—adding to the Superintendents, problems of using less to produce more and better turf. It will be our Association's aim to remind golf club officials and members that temporary "economies" effected by mid-season cutting of budgets are false economics—often producing adverse effects on the golf course turf that must be corrected later at costs that usually exceed the original "saving."

HYACINTH CONTROL SOCIETY

P.O. Box 508, Floral City, Fla. 32636

Brandt G. Watson, Sec.-Treas.

Officers and Directors for '72: Robert J. Gates, pres., SW Fla. Water Mgmt. Dist., Brooksville, Fla.; Stanley Abramson, v.-pres., Southern Mill Creek Prod., Tampa, Fla.; Brandt G. Watson, sec.-treas., Naples Mosquito Control, Naples, Fla.; David L. Sutton, editor, Agricultural Research Serv., Ft. Lauderdale, Fla.; Robert P. Blakeley, director, Plantation Farms, Inc., Plantation, Fla.; Ray Spirnock, director, Central & Southern Fla. Control Dist. Flood, Miani, Fla.; Al P. Burkhalter, director, Dept. of Natural Resources, Tallahassee, Fla.

Annual Meeting: July 9-13, 1972, Miami Springs Villas & Hotel, Miami Springs, Fla.

Highlights of '71: Membership of the Hyacinth

Control Society now over 300 strong. The future of noxious aquatic weed control in the State of Florida will depend on three types of control as follows: (1) Chemical Research. Physiological and Microbiological Investigations of noxious aquatic plants is underway by Dr. W. S. Silver and Dr. R. L. Mansell, University of South Florida; (2) Mechanical Research. This work is being investigated by Dr. Al Burkhalter, Aquatic Plant Research and Control Coordinator, Florida Department of Natural Resources; and (3) Biological. White Amur (grass carp) research will be a cooperative program by the Agricultural Research Station (Robert D. Blackburn, Botanist) and the Game & Fresh Water Fish Commission (John W. Woods, Chief of Fisheries Biologist).

Program for '72: The Society will support the necessary efforts in constructing two pieces of Legislation, in hopes of getting them passed in the next Legislature: (1) License or certify all people using chemicals in the waterways; and (2) Dissolve all Drainage Districts that do not have a maintenance program for their works to be maintained for weed control purposes and engineered design.

Forecast for '72: It will continue about the same, until current research can come along with new methods that are safe for the environment. Conditions of our waterways, as far as weed growth, will likely continue to get worse or will infest more and more water acres of valuable waterfront.

INTERNATIONAL PESTICIDE APPLICATORS ASSOCIATION, INC.

5600 SW Rosewood, Lake Oswego, Ore. 97034
Tel. (503) 636-6443

L. F. (Lew) Sefton, Secretary-Treasurer

Officers and Directors for '72: Charles Seibold, pres., Major Spray Service, Portland, Ore.; Don Mock, vice-pres., Shamrock Spray Service, Seattle, Wash.; L. F. Sefton, sec.-treas., Sefton Spray Service, Lake Oswego, Ore.; and directors, George Harrison, Washington Tree Service, Seattle, Wash., John Beheyt, Eastside Spray Service, Kirkland, Wash.; Bob Skanes, Crothers Spray Service, Tacoma, Wash.; Bill Owen, General Spray Service, Clackamas, Ore.; Jim Cole, Cole's Spray Service, Portland, Ore.; Ken Thorpe, General Spray Service, Clackamas, Ore.; and alternate directors, Jack Daniels, Greenup Spray Service, Seattle, Wash.; Lewis Crothers, Crothers Spray Service, Tacoma, Wash.; Gary Mulkey, Mulkey Tree & Spray Service, Junction City, Ore.

Annual Meeting: September 14-16, 1972, Jantzen Beach Thunderbird Motel, Portland, Ore.

Highlights of '71: Association fight to slow down action against DDT ban. Actions filed against both Washington State Department of Agriculture and the U.S. Environmental Protection Agency to enable all facts to be considered before a decision on ban. This is only action taken by any pesticide applicators. Cost has exceeded $10,000 to date.

Name change was made to cover expansion of association from the regional name of Northwest Pesticide Applicators Association.

Sprayorama, an annual tour and field day along with a 2-day educational program follow-up was held at Seattle, Wash.

A new chapter was formed in October from the San Francisco Bay area of California and admitted to the IPAA. The new group totaled 42 charter members. A similar group from the Los Angeles area has now inquired about forming another chapter group. This latter move came about as a result of an IPAA representative attending the Western Chapter International Shade Tree Conference annual meeting. Other chapter possibilities as a result of attendance at the most recent Sprayorama are New York, Washington D. C., Utah, and British Columbia, Canada.

Program for '72: (1) Continuation of an all-out fight to save Chlorinated Hydrocarbons and restore uses of DDT. Goal: To expose fallacies and bring to light the good done by these chemicals; (2) Strengthen our cause by enlisting all possible new Chapters and personnel in our Organization; (3) Present an Annual Meeting (Sprayorama) in September, 1972 which, hopefully, will bring out still more sane thinking on pesticides; and (4) Continue the upgrading of an already fine industry and assure the public that the safe and efficient way is through the Licensed Pesticide Applicator.

Forecast for '72: The Industry in 1972, and all coming years, must continue to grow. Population increase makes the preservation of all plant life a needed personal contribution of every pesticide applicator. With fewer producing food for more, and vegetation yielding to housing and industry, we are unrecognized benefactors to mankind. Our preservation of existing oxygen-producing vegetation makes us a unique industry in this day of air pollution. Scientists with facts are now defending this necessity and exposing pesticide fallacies. Truth is replacing sensationalism.

INTERNATIONAL SHADE TREE CONFERENCE, INC.

3 Lincoln Square, P.O. Box 71, Urbana, Ill. 61801
Tel. (217) 328-2032

E. C. (Cal) Bundy, Executive Secretary

Officers and Directors for '72: H. M. Van Wormer, pres., Van Wormer Tree Service, Richmond, Va.; Dr. John A. Weidhaas, Jr., pres.-elect, Virginia Poly Tech. Institute, Blacksburg, Va.; F. Lewis Dinsmore, vice-pres., Dinsmore Tree Service, St. Louis, Mo.; Dr. E. B. Himelick, exec.-director, Ill. Natural History Survey, Urbana, Ill.; Dr. Dan Neely, editor, Ill. Natural History Survey, Urbana, Ill.

Annual Meeting: August 13-17, 1972, Newporter Inn, Newport Beach, California.

Highlights of 1971: I.S.T.C. processed a total of 263 new members for 1971. Membership is steadily increasing in all seven Chapters thanks to the efforts of many old members; I.S.T.C. publication "Shade Tree Evaluation" was revised and is a very popular item. Requests are averaging twenty per month; I.S.T.C. sponsored a National Committee

to formulate Safety Standards for Tree Pruning. This work is now completed and the uniform standards will be published and made available to the separate states for implementation; We increased the size of our monthly magazine "Arborist's News" from 12 pages to 28 pages. This enlarged publication has permitted us to realize more advertisements to offset cost of printing; and total registration of 877 delegates was a record breaker at our 47th convention in Montreal during August.

Program for '72: Will continue the financial support of our research project at the University of Wisconsin titled "Effects of Transplanting on Physiological Responses and Growth of Shade Trees"; Will encourage the Federal Government of the United States and Canada to establish an Annual National Arbor Day during 1972; Will request that the U.S. Postmaster General consider the issuance of an Arbor Day Stamp in commemoration of the 100th Anniversary of Arbor Day in 1972; Will publish and make available our recently revised publication titled "Standard City Tree Ordinance"; and will continue the dessemination of knowledge in the science and art of growing and maintaining shade and ornamental trees via our annual and monthly publications, and our regional and international meetings.

Forecast for '72: The Industry Forecast during 1972 for those who work with shade and ornamental trees looks excellent; Arboriculture research and educational activities are increasing at the universities and the Federal Government. U.S. Forest Service is re-gearing to concentrate more on shade and ornamental tree problems as they relate to the urban population; Public in general is more aware of the need for professional tree service to keep their trees going and growing. There will be more emphasis placed on tree work safety regulations that will soon be enforced. This will up-grade the industry and will help eliminate the poorly equipped operator. Thus the professional approach will be more uniform throughout the industry; and in general trees are receiving more respect as a result of the emphasis placed on our environment.

NATIONAL AGRICULTURAL AVIATION ASSOCIATION

1101 17th St. N.W. Suite 808
Washington D.C. 20036
Tel. (202) 223-2822

F. Farrell Higbee, Executive Director

Officers and Directors for '71 ('72 slate will be elected at December annual convention): Les H. Mills, pres., La Crosse, Wash.; Terry K. Pfeil, vice-pres., Weseca, Minn.; Jack Duke, sec., Tuscaloosa, Ala.; Russell Benson, treas., Sterling, Colo.; and directors, V. Ray Thornton, Cane-Air, Inc., Belle Rose, La.; William O. Marsh, Aerial Application Technology, Inc., Mesa, Ariz.; Robert A. Phillips, Phillips Aero Agric. Ser., Ceres, Calif.; Richard Reade, Mid-Continent Aircraft Co., Hayti, Mo.; R. B. Allison, Allison Ag. Aviation, Connell, Wash.; Robert Bailey, North American Rockwell, Clinton, Miss.; Walter F. Ball, Ball Aero, Huron, S. Dak.; Richard Carroll, Crop Care, Aledo, Ill.; Gary Coulter, Meeker Airport, Meeker, Colo.; Cecil Dorminey, Dorminey Dusting Service, Doerun, Ga.; Gene Barnes, East Prairie, Mo.; Richard D. Eccles, Calicopters, Stockton, Calif.; Luther Gibbs, Gibbs Aero-Sprays, Inc., Fremont, Ohio; J. H. Henley, Aero Agricultural Service, Inc., McAlester, Okla.; Walter Hensley, Hensley Flying Service, Havre, Mont.; B. L. Hinman, Bee's Airline, Plains, Kan.; Paul E. Hursh, Hursh Brothers, Inc., Amana, Ia.; Byron Hodgin, Union Carbide Corp., Rolling Meadows, Ill.; Al F. Johnson, Air Enterprises, Inc., Magnolia, Del.; Jack Lenhardt, Lenhardt Airpark, Inc., Hubbard, Ore.; C. R. Lindhoff, Accurate Aero Forms, Des Moines, Ia.; Russell Miller, Cal-Mil Plastic Products, Inc., Carlsbad, Calif.; George F. Mitchell, Jr., M & M Air Service, Beaumont, Tex.; Neal Mitchell, Jacobs-Page Co., Oklahoma City, Okla.; Robert Mueller, Mueller Crop Dust Service, South Haven, Mich.; Joe Pugh, Lakeside Ag. Service, Inc., DeWitt, Ark.; Elmer Plettner, Jr., Plettner Aerial Spray, Sutton, Neb.; Darroll Schroeder, Schroeder Aviation, Davenport, N. Dak.; Dale Steward, Phoenix, Ariz.; Harvey J. Sutton, Helicopter Spray, Inc., Lake Wales, Fla.; Harold Tapley, Tapley Flying Service, Shaw, Miss.; and Bud Darling, South Carolina AAA, Bennettsville, S.C.

Annual Meeting: Dec. 11-14, International Hotel, Las Vegas, Nev.

Highlights of '71: Membership climbed to 500 industry members and 74 allied industry members.

Forecast for '72: This has been a good year except for isolated spots. Industry exceeded average annual growth rate. Next year expected to be better if economy improves.

NATIONAL ARBORIST ASSOCIATION

1750 Old Meadow Road, McLean, Va. 22101
Tel. (703) 893-7347

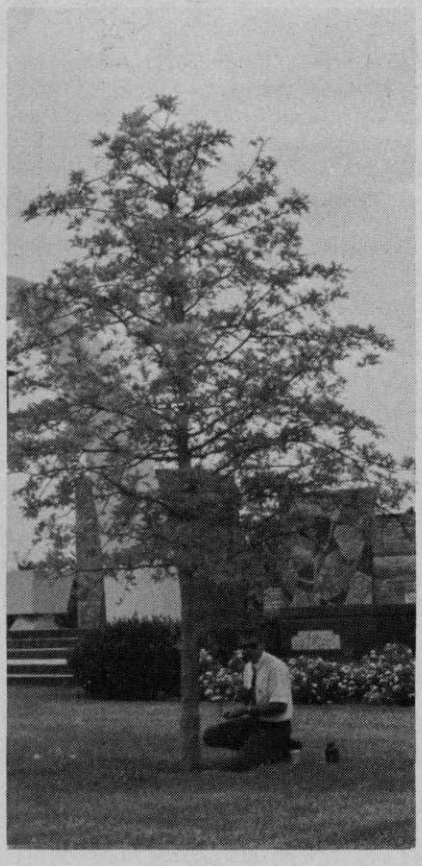
Allan T. Rains, Jr., Executive Secretary

Officers and Directors for '72: William P. Lanphear, pres., Forest City Tree Protection, Cleveland, Ohio; Glenn Burns, 1st vice-pres., Karl Kuemmerling Assoc., Inc., Canton, Ohio; John A. Shullenbarger, 2nd vice-pres., Gustin Gardens Tree Service, Gaithersburg, Md.; W. Roland Shannon, sec., Shannon Tree Co., Milford, Pa.; Robert Felix, treas., Harder Services, Inc., Hempstead, N. Y.; and directors, William A. Rae, Frost & Higgins, Burlington, Mass.; Thomas A. Morrison, H. A. Morrison Arborist, Wilmette, Ill.; Paul Ramsey, N. G. Gilbert Corp., Muncie, Ind.; and Boyd Haney, B. Haney & Sons, Franklin Park, Ill.

Annual Meeting: Feb. 13-17, 1972, International Inn, Tampa, Fla.

Highlights of 1971: As a major service during 1971, NAA headquarters has strived to keep members informed of important activities in Washington relating to the Occupational Safety and Health Act and the Wage-Price Freeze. This has been done through articles in the Association's monthly newsletter as well as through supplemental mailings.

(continued on page 74)



Early testing of Medicaps was done in 1969. Tree at time of treatment showed mild iron chlorosis. Today it is a thriving specimen.

Tree, used as control in '69 test with tree in above picture, also exhibited mild iron chlorosis. It died in 1970.

New and on the Market

SYSTEMIC TREATMENT VIA TRUNK INJECTION

A new systemic system for treating trees via trunk injection is now on the market. Treatment, at the moment, is limited primarily to use of iron for chlorosis.

The patented system consists of a series of capsules being injected or planted in the tree trunk. Implants are known as "Medicaps" and are placed directly into the cambium layer in the area of active sap flow. Creative Sales, Inc., Fremont, Neb., manufacturer and sales outlet for the process states that use of the capsules is both easy and effective and speeds the use of pre-measured materials into the tree system.

Normally, a 3" to 5" tree will require three Medicaps, placed around the trunk at about 5-inch intervals. Each additional inch of tree diameter will require another Medicap, are then driven into the pre-drilled holes. Each Medicap is 1⅛-inch long, permitting the capsule to be driven exactly ⅛-inch beyond the surface of the cambium layer. Treatment, according to Wolfe, requires only minutes per tree, using a standard drill and half-inch bit. And, he states, it should be good for 2 to 5 years unless the chlorotic condition is extremely serious in which case retreatment earlier may be necessary.

Wolfe points to the Medicap technique as simply a plastic cartridge that serves as a container for a premeasured volume of chemical. It serves as its own applicator, has its own antirejection barbs, and provides its own cork to seal the application site. The Medicap is tapered, to allow for easy insertion into the predrilled hole, has four slots on the sides which allow for release of the contents at a regulated rate. Slots, Wolfe reports, are lined according to Warren D. Wolfe, president of the corporation. Holes, one-half inch in diameter and 1¼ inches deep, are drilled into the tree trunk. The plastic, bullet-shaped Medicaps with a soluble sealant. This sealant retains the contents until contacted by tree sap at which time they are released into the sap stream.

Larger trees are easy to treat with new Super Medicaps. These have over double the iron content of those capsules first introduced. Wolfe also reports a new Mini-Cap is being introduced this season, which is ideal for plantings below 3" in caliper (i.e. field nursery plantings and highway or roadside plantings.

Wolfe, backed by a number of university research projects, believes that there is a great efficiency in trunk injection of iron. Iron compounds, he states, applied to the soil must be used at rates of 2½-4 pounds of product per inch of trunk diameter. With Medicap injection, using the concentrated form of iron, the rate may be as low as two grams or less.

Wolfe also reports that use of iron via the trunk implant system is only the beginning for the systemic method. Tests and research are underway with a number of promising systemic insecticides and fungicides, he continues, and there is reason to believe efficiency will be as great as that with iron. Tests to be made with different sized capsules will allow for rate studies, and possible use of combination ingredients.

A roundup of ornamental tree

Tools for the job consist of small hammer and portable drill and bit. Bulk pack of 100 iron Medicaps will treat 20 average trees, according to Warren D. Wolfe, Creative Sales, Inc.

Jim Elliott, left, production manager for Plumfield Nurseries, Fremont, Neb., and Warren D. Wolfe, president of Creative Sales, Inc., use new Mini-Caps for nursery trees down to 1-inch in size.

problems on which Wolfe reports research is underway or planned includes: (1) Dutch elm disease with systemic insecticides for possible control of the elm bark beetle; and systemic fungicides aimed at controlling the disease; (2) anthracnose which is an increasing disease problem in many sycamore trees; (3) mimosa webworm, a continuing problem; (4) bronze birch borer and other borers for which no acceptable control is currently available; (5) the pine tip moth and elm leaf beetle for which some systemic insecticides appear very promising; and (6) gypsy moth control.

Creative Sales, Inc., believes popularity to date for their new system stems from the fact that it avoids the common public resistance to sprays and dusts, and requires little time and equipment for a serviceman to handle a client problem. The system is also adaptable for the homeowner do-it-yourselfer, according to Wolfe.

WHAT'S SO SPECIAL ABOUT CYCLONE SPREADER/SEEDERS?

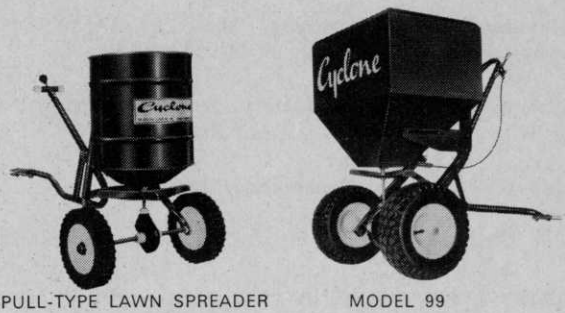
SPEED/ACCURACY
FREEDOM FROM STRIPES/VERSATILE
DEPENDABLE/EASY TO USE

There's a Cyclone for almost every spreading and seeding job . . . more than 20 different models! If you have a special spreading or seeding problem, let us know about it. Chances are we already have the answer for you. □ Cyclone Spreader/Seeders save time—save work—save materials. They broadcast at precise, recommended rates—up to 5 times faster than ordinary spreaders. Cyclone Equipment is widely used for seeding, fertilizing, applying granular insecticides, herbicides, ice melters, soil conditioners, dust control materials, etc. Comprehensive spreading charts are included with all models. □ It's results that count! And for best results—use Cyclone Equipment. See your Cyclone Dealer or Distributor today, or ask us for full information on the dependable, versatile Cyclone line of Broadcast Spreading Equipment. □ Manufacturers of Broadcast Spreading Equipment since 1868.

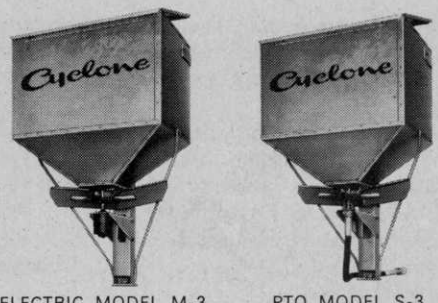
THE CYCLONE SEEDER CO., INC.
Dept. 101-12, Urbana, Indiana 46990

Cyclone

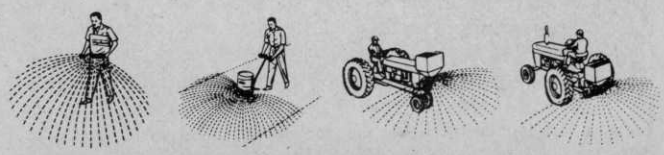
HAND SEED SOWER LAWN SPREADER



PULL-TYPE LAWN SPREADER MODEL 99



ELECTRIC MODEL M-3 PTO MODEL S-3



For More Details Circle (140) on Reply Card

meeting dates

Indiana Annual Winter Conference, Indiana Association of Nurserymen and Indiana Arborists Assn., Stouffer's Inn, Indianapolis, Ind., Jan. 4-6.

Northeastern Weed Science Society, 1972 Convention, Hotel Commodore, New York, N. Y. Jan. 5-7.

Georgia Golf Course Superintendents Association, Annual Meeting, Augusta Golf Clubs and Holiday Inn, Augusta, Ga., Jan. 9-11.

Western Association of Nurserymen, 82nd Annual Meeting, Plaza Inn, Kansas City, Mo., Jan. 9-11.

Helicopter Association of America, 24th Annual Meeting, Stardust Hotel, Las Vegas, Nev., Jan. 9-12.

Mid-Atlantic Golf Course Superintendents, Annual Conference, Holiday Inn Downtown, Baltimore, Md., Jan. 10-11.

Tennessee Turfgrass Association, Annual Conference, King of the Road Inn, Nashville, Tenn., Jan. 10-11.

Nebraska Turfgrass Conference, Tenth Annual, Kellogg Center, Univ. of Neb., Lincoln, Neb., Jan. 12-14.

New Hampshire Turf Seminar, University of New Hampshire, Durham, Jan. 13-14.

Georgia Nurserymen Short Course, Annual, University of Georgia Center for Continuing Education, Athens, Ga., Jan. 13-14.

California Weed Conference, 24th, Del Webb Towne House, Fresno, Calif., Jan. 17-19,

Southern Weed Science Society, Annual Meeting, Statler Hilton Hotel, Dallas, Tex., Jan. 18-20.

Michigan Turfgrass Conference, Michigan State University, Kellogg Center, East Lansing, Mich., Jan. 19-20.

Ohio Chapter of the International Shade Tree Conference and the Ohio State University short course for arborists, turf managers, landscape contractors, garden center operators, nursery men, and others, at the Sheraton-Columbus Hotel, Columbus, Ohio. Jan. 23-27.

Virginia Turfgrass Conference, Sheraton Motor Lodge, Fredericksburg, Va., Jan. 25-26.

Colorado Farm Show, Community Building, Greeley, Colo., Jan. 25-26.

Pennsylvania Chapter of the International Shade Tree Conference, Marriott Motel, Philadelphia, Pa., Jan. 27-28.

Midwestern Chapter of the International Shade Tree Conference, Pick-Congress Hotel, Chicago, Ill., Feb. 8-10.

Southern Chapter of the International Shade Tree Conference, Marriott Motel, Atlanta, Ga., Feb. 12-16.

International Turfgrass Conference and Show, 43rd Annual, Golf Course Superintendents Association of America, Convention and Exhibit Center, Cincinnati, Ohio, Feb. 13-18.

Maryland Arborists' Day, University of Maryland Center of Adult Education, College Park, Md., Feb. 15.

Maryland Nurserymen's Day, University of Maryland Center of Adult Education, College Park, Md., Feb. 16.

Colorado Agricultural Aviation Assn., 24th Annual Meeting, Continental Motor-Hotel, Valley Highway and Speer Blvd., Denver, Colo. Feb. 28-29.

Williamsburg Garden Symposium, Colonial Williamsburg Gardens, Va., Apr. 9-15.

Canadian Chapter of the International Shade Tree Conference, Holiday Inn, Hamilton, Ont., Canada, Apr. 14-15.

INDUSTRY ASSOCIATIONS IN 1972 *(from page 71)*

Members have also received the results of an equipment survey conducted by the Association, and will receive complete industry statistics during the fall.

The Assoication has made its Home Study Program in Arboriculture available to non-members, and Standards on Tree Care have been revised and reprinted and are available for sale.

A membership campaign was launched during September, and will remain in full swing through early 1972.

Program for 1972. During early 1972 the Association's membership campaign will continue, as will such services as the monthly newsletter and other mailings of pertinent material. The industry statistics will be compiled again during 1972. It is hoped that the Association will be able to print a document on running a business, covering such topics as accounting, personnel, taxes, and general management.

Forecast for 1972: The economic outlook for 1972 as it pertains to the tree business is probably going to relate directly to the success of the new inflation controls. 1972 will be better than 1971 but definitely not a boom year. We will have to pay close attention to the Government regulations such as the new safety law provides. All the help we can get, such as training our men with the National Arborist Association Home Study Program, attending the February Annual Meeting, and learning our responsibilities for safety will add to our ability to compete against the profit squeeze of inflation. To summarize, 1972 will be a good year for the better prepared. It will be very competitive, and costs must be kept down as inflation is not controlled as yet.

SOD INDUSTRY SECTION

SOD FARM/GOLF COURSE COMBO

BOB CLARK converted his corn fields and dairy farm into a thriving public golf course.

Acting on a suggestion 11 years ago, Clark converted the 160-acre family farm on the southern outskirts of Des Moines into an 18-hole public golf course. Later he started growing cultivated sod for market.

"I didn't know the first thing about golf courses or golfing," Clark said. "I had no idea what grass to sow for greens even."

First he went around the area and studied other courses. Then he enlisted the assistance of two Iowa State University professors, Dr. Elliott Roberts, when he was at Iowa State, and Don White. They designed the course and staked it out. Clark tore out fences and plowed up the entire farm. An auction disposed of unneeded equipment and cattle.

Clark also got expert advice on the kind of grass to use from Polk County Extension Agent Grover Hahn.

The first nine was completed in 1961. Clark called in experts to design the second nine which was developed in 1963.

"It was quite a change for the Clark family because we had always been farmers," he said. "My father, who was 77 at the time, agreed to the new venture — quite a change of direction."

The elder Clark still buzzes around the course in a golf cart and even shoots a round or two now and then.

Bob Clark and son, Bob, check daily job schedule.

The old cow barn now serves as a shed for golf carts. A modern pro shop has been added.

Known as Willow Creek, the bustling course is one of the most attractive in Iowa. A creek that used to be a watering spot for Clark's 24 Holsteins, has been dammed to make lakes and provide hazards for the linksters. Its also a source of irrigation for the course.

In 1965, Clark took another major step by instituting a sod farm alongside the course.

So successful has the operation been that Clark is searching for more acreage to grow sod.

"We're about at the saturation point for our sod business," he said. "The sod farm came as an offshoot

Clark and son, Dan, review golf course maintenance projects. Course and lake are in background.

Clark's sod business started small, with sales doubling each year. He sold more than 60 acres in '71.

of the golf course and now is coming into its own as another major source of income."

Clark said that the sod business has doubled every year, reaching 40 acres in 1970. He sold more than 60 acres this season.

The sod farm covers 130 acres of Kentucky Bluegrass for sale on both the retail and wholesale levels. His customers are contractors and home-builders as well as individuals who merely want to make repairs in their yards.

"It takes one to three years to grow grass on the sod we sell," Clark said. "The weather is the determining factor because we don't irrigate the sod farm."

Most of the approximately 25 employes are members of the Clark clan.

"It's a family team," said Clark. "We like each other and get along surprisingly well. All live on or near the golf course. I'd be lost without these people."

Clark's wife, Ardis, is his No. 1 assistant. Two daughters, Susan, 22, and Lori, 12, work in the clubhouse. Sons Bob, 24, and Dan, 14, do "anything and everything" around the course and sod farm. Clark's sister, Mrs. Mary Acheson, is the bookkeeper. One of her sons, Kent, manages the sod farm; another, Sam, has worked for Clark since he was eleven and is marrying a girl who used to work at the clubhouse. Two more of Clark's nephews, brothers Bill and Jim Baumberger, have also worked for him. About the only nonrelative is Dale Foster, grounds superintendent.

Sod operation has been successful. Clark is now seeking more land to expand.

Of his sod operation, Clark says, "We sell it any way the customer wants it — cut, rolled, delivered and laid. We'll even prepare the ground for laying."

The workhorse machine in his equipment stable is a Massey-Ferguson MF 20 industrial tractor equipped with a scraper. "We do everything with this combination," Clark said. "During the season it goes nearly 12 hours a day. When we get caught up on the sod farm, we put it to work mowing the golf course."

Weather and workers are Clark's biggest problems.

"It's hard to get the kind of help you need — the ones who want to work," he said. "Also, we have a seasonal operation and can't keep a full work force on hand all year. This means we lose a lot of people from year to year and have to spend valuable time training new workers."

Plant diseases and weeds posed an early threat to both operations, but Clark said that experts from Diamond Shamrock Chemical Company recommended application of Dacthal and Daconil. "They did the trick," he said.

Clark said he is still looking for new enterprises to be spawned by the golf course.

"The course provides only a fair income," he said. "We need to branch out more. What we have now enables us to hold this high priced land together and possibly get more. We feel we are just scratching the surface of the potential offered here."

industry people on the move

James T. Conner, to Chemagro as Washington, D.C. representative in a government, legislative liaison position, from the National Agricultural Chemicals Association position of director of congressional affairs.

* * *

W. Richard Hildreth to director of the Saratoga Horticultural Foundation, Saratoga, Calif., from California Arboretum at Davis. He succeeds **Maunsell Van Rensselaer,** now director emeritus.

* * *

Ambrose DeGidio, named general manager of Toro's Turf Products Division, replacing the late **Dr. Finn J. Larsen,** from director of engineering and manufacturing of the same Division.

* * *

Ernest W. Neben, to Wanye Manufacturing, Pomona, Calif., as vice-president, manufacturing, from general manager's position with Cochran Western Corp.

* * *

James E. Olds, to Toro as patent attorney, from St. Paul, Minn., firm of Kinney, Alexander, Sell, Steldt, and Dela Hunt.

* * *

Einar Jacobsen, elected chairman of the board of Jacobsen, from position of president, and **Neal D. Crane,** named president and chief operating officer, from American Machine & Foundry where he was vice-president.

* * *

Paul L. Dederich, appointed sales manager of R. E. Chapin Mfg. Works, Inc., Batavia, N.Y., succeeding **William R. Mahrt,** who retired Sept. 1.

* * *

D. W. Clark, appointed media manager, American Cyanamid; and **Dennis McCormick,** named assistant manager, public relations.

* * *

Thomas L. Proctor, appointed sales representative for professional pest control, Velsicol Chemical Corp.

* * *

Dr. John R. Hall, III, named Extension turfgrass management specialist, University of Maryland.

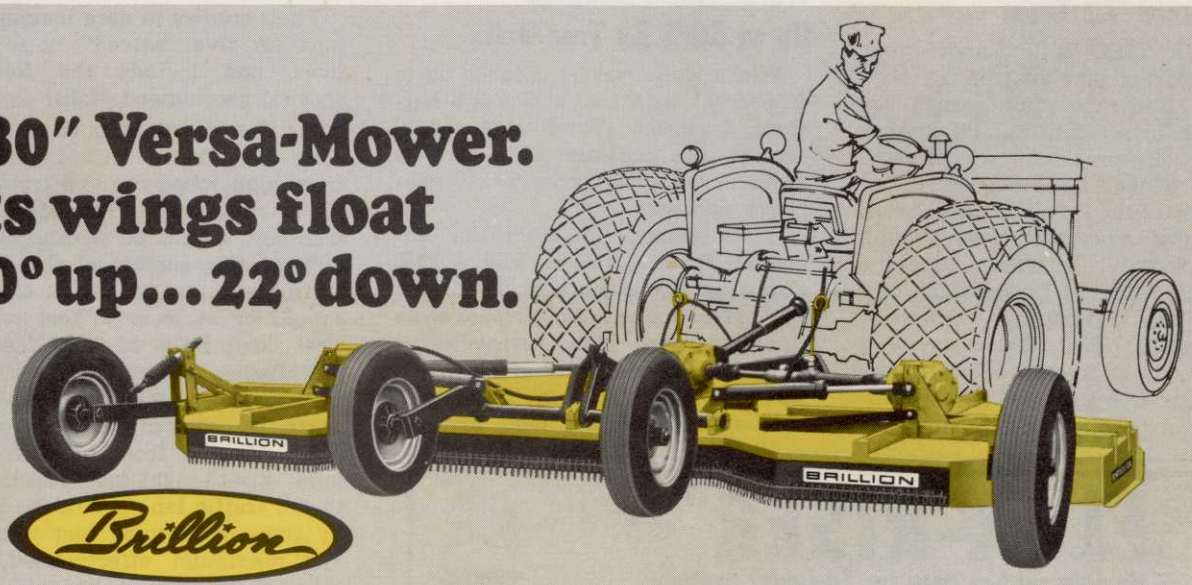
* * *

David H. Kutner, appointed to an executive capacity in office of president for W. R. Grace & Co., from presidency of Hammond Organ Co.; and **Bernard H. Burton** and **O. Ben Hander** elected corporate vice presidents for W. R. Grace. Burton, from vice president's position with Engelhard Mineral and Chemicals Corp., and Hander from vice president of Grace's General Development Group.

* * *

Harry O. Bercher, retires as chairman of the board of International Harvester; **Brooks McCormick,** president, elected chief executive officer in addition to duties as president.

180" Versa-Mower. Its wings float 60° up...22° down.



Brillion

If Brillion builds it—it has to be better!

The Brillion Versa-Mower has two 5′ wings that safely operate up to 60° above horizontal, or 22° below. Lets you cut a 15′ swath on embankments, gulleys, rolling terrain, without scalping. Wings lift and lower hydraulically. Even fold vertical for an 88″ transport width.

Versa-Mower cutting heights adjust hydraulically from 1″ to 14.″ All wheels are inside cutting path for smooth, even mowing. Skids on center section and on wings. For tractors 45 hp. and up, with 540 rpm. PTO. Drive shaft protected with shear pins, or optional slip clutch. Other options include: front and rear safety chain guards, manual lift kits, hydraulic control kits for most tractors.

Look into the Brillion Versa-Mower. It's ideal for highway right-of-ways, parks, golf courses, airports, industrial sites. Mail coupon for full details.

BRILLION IRON WORKS, INC.
Dept. VM-41-121, Brillion, Wisconsin 54110
FEMA
Please send full information on:

○ Versa-Mower ○ Mow-Safe Flail Mower
○ Landscape Seeders ○ Terra-Scaper Landscape Rake
○ Smooth Roller Pulverizers ○ Full Line of Rotary Mowers
○ Name of nearest Brillion dealer

Name_____
Company_____
Address_____
City_____ State_____ Zip_____

Roy F. Broyhill

FEMA Elects Broyhill

A manufacturer of speciality spray application equipment, Roy F. Broyhill, was elected president of the Farm Equipment Manufacturers Association at the recent 21st annual convention at Denver.

Broyhill is president of The Broyhill Company, Dakota City, Neb.

The Association membership manufactures "shortline" equipment and accounts for more than a third of the total farm equipment market. Currently, more than 250 of these companies from the U.S. and Canada and from 10 foreign countries hold membership in FEMA.

Minnesota '72 Team

George Lilli, Lilli Landscaping, was reelected president of the Minnesota Landscape Maintenance Association in a recent annual session. Named vice-president was Lowell Rinker, Rinker Landscaping.

Others elected for '72 are: Leonard "Andy" Anderson, Green Thumb Lawn Service, treasurer; Dwayne Albrecht, Albrecht Landscaping secretary; Mel MacFarlane, editor of publications; Earl Halvorson and Ken Simons, special consultants; and Walt Cooper, business coordinator and promotions director.

Representatives of Dow Chemical USA, the Farm and Industrial Equipment Institute (FIEI), and the Future Farmers of America, recently signed a memorandum of understanding for sponsorship of the FFA National Safety Award Program. Representatives of the organizations included: (left to right seated) Lyle Yost, president, FIEI and president of Hesston Corporation; Dan Lehmann, past national FFA president; W. L. Corbin, general sales manager, Kansas City District, Dow Chemical; (standing) Doug Hewitt, executive secretary, FIEI; Fred Stines, publisher and chairman of the National FFA Foundation sponsoring committee; and Jim Hansen, public relations manager, Dow Chemical.

Traffic Noise Reduced Up to 50% By Tree Belts

Traffic noise can be reduced up to 50 percent with tree and shrub barriers. A similar sound level reduction is also possible with barriers around shopping centers or near heavy industry.

A University of Nebraska engineer, David I. Cook, and a U.S. Forest Service researcher, Dr. David F. Van Havebeke, have released these findings. They have further tests underway to study use of trees and shrubs in combination with solid barriers and natural land features in noise abatement.

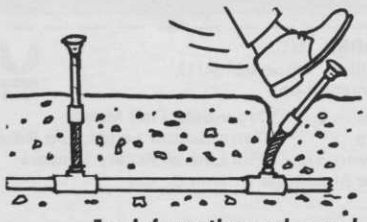
Their studies to date include a report on five "solved" noise problems, and include the following specific recommendations:

(1) Tree-shrub belts 65 to 100 feet wide are effective in reducing noise from high speed car and truck traffic in rural areas. The edge of the tree belt should be within 50 to 80 feet of the center of the nearest traffic lane, and the center tree rows should be at least 45 feet tall; (2) Tree-shrub belts 20 to 50 feet wide are effective in reducing noise from moderate-speed car traffic in urban areas. The edge of the belt should be 20 to 50 feet from nearest traffic lane. Six-to-eight-foot shrubs next to the traffic lane should be backed by rows of 15-to-30 foot trees; (3) For maximum effectiveness, tree-shrub belts should be tall, dense, and located close to the noise source, rather than close to area protected. Evergreen trees and shrubs are most effective where year-round noise screening is desired; and (4) Tree-shrub belts should be about twice as long as the distance from the noise source to the receiver.

The report, "Trees and Shrubs For Noise Abatement," is available at 50 cents from the Department of Information, East Campus, University of Nebraska, Lincoln, Neb. 68503.

FLEX-RISER®

A flexible rubber riser for Sprinkler Systems



BENDS WITH IMPACT... COMES BACK FOR MORE

ENDS COSTLY REPAIRS

For information and your local distributor, write:

KING BROTHERS INDUSTRIES

Dept. W • 9245 Noble Avenue

Sepulveda, California 91343 Phone 213 893-3013

insect report

TURF INSECTS

FALL ARMYWORM
(Spodoptera frugiperda)

TEXAS: Second generation increasing on grasses in Erath County. Apparently decreasing in south-central area.

A STINK BUG
(Edessa florida)

VIRGINIA: Adults collected in house in Cloucester County October 6. This is a new county record.

GRASSWORMS
(Mocis spp.)

FLORIDA: *M. latipes* accounted for 90 percent of populations; damage severe to 10-acre pangola grass pasture at Loxahatchee, Palm Beach County and 0.5 to 1-acre spots in pastures at Belle Glade.

A DELPHACID PLANTHOPPER
(Delphacodes propinqua)

ARIZONA: Moderate to heavy in Bermudagrass seed at Yuma, Yuma County.

INSECTS OF ORNAMENTALS

BRONZE BIRCH BORER
(Agrilus anxius)

OREGON: Survey of ornamental birches in Pendleton, Umatilla County, detected infestation in eastern sector of city. Previously, infestations in southwest sector.

HAWTHORN LACE BUG
(Corythucha cydoniae)

PENNSYLVANIA: Adults infested Crataegus *Crataegus phaenopyrum* at Kettanning, Armstrong County, October 1. This is a new county record. Adults infested *Crataegus monogyna stricta* at Gilbraltar, Berks County, September 30.

A LACE BUG
(Stephanitis takeyai)

PENNSYLVANIA: Adults moderate on *Pieris japonica* at Kimberton, Chester County, October 1; adults light on *P. japonica* at Media, Delaware County, September 30, for new county records; adults heavy (treated in July) at Audubon, Montgomery County, October 6; heavy on azalea (yellowing) in nursery at Glen Mills, Delaware County, September 30.

CRANBERRY SPANWORM
(Anavitrinella pampinaria)

ARIZONA: Controls difficult in many instances in Maricopa County.

TREE INSECTS

BARK BEETLES
(Dendroctonus spp.)

SOUTH CAROLINA: Populations of *D. terebrans* (black turpentine beetle) and *D. frontalis* (southern pine beetle) increasing on pines in Oconee, Aiken, and surrounding counties. NORTH CAROLINA: *D. frontalis* increased in Durham, Person and Granville Counties. In other areas, activity remains about same or less than earlier in 1971. Salvage control continues.

VARIABLE OAKLEAF CATERPILLAR
(Heterocompa manteo)

OKLAHOMA: Moderate on oaks in Tulsa County. Light on pin oak in Stillwater area, Payne County. TEXAS: General larval infestations in oaks throughout northeast area. Isolated infestations on oaks in Travis and Montgomery Counties.

A LECANODISPIDID SCALE
(Lecanodiaspis prosopidis)

UTAH: Heavy on ash twigs at Moab, Grand County, September 1.

safely lifts riding mowers up to 80" for quick and easy servicing

G&H uni-LIFT

motorized all-position stand for riding mowers also available

Dependable hydraulic power safely lifts 1000 lb. loads to any working height up to 80"—in less than 30 seconds. Operator faces lifting action—reaches all controls without moving. Runways are 72" long and are adjustable in width from 17" to 46". No permanent installation required. Write today.
G & H Products, Inc., Dept. WT
St. Paris, Ohio 43072

For More Details Circle (132) on Reply Card

BETTER TURF MAINTENANCE

FUERST FLEXIBLE TINE HARROW®

- Aerates
- Works in Seed, Fertilizer
- Prepares finest Seedbeds

The ideal low cost tool for better lawn building and maintenance. Flexible construction for complete coverage. 3 settings — deep or light penetration or smoothing drag mat. Easy to store. No maintenance. Lasts for years. 2 models — heavy duty and extra heavy duty — in 6 to 24 ft. widths. Also new 4½ ft. Mini Harrow for use with compact tractors.

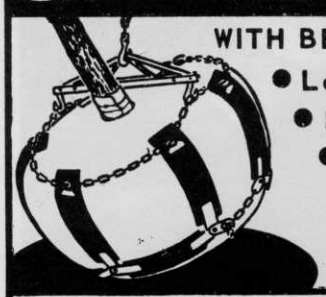
Unique Sectional Construction

Write today for free literature and prices.

FUERST BROTHERS Dept. WT-12 Rhinebeck, N.Y. 12572

For More Details Circle (125) on Reply Card

SAVE TIME AND TREES



WITH BESELER TREE SLINGS

- Less digging, adjustable
- For any soil condition
- No skill required
- Quickly on or off
- Controllable tilt

Patented

BESELER EQUIPMENT CO. 5417 Oak Lawn Ave., MINNEAPOLIS, MINNESOTA 55424

For More Details Circle (131) on Reply Card

CROWNVETCH

We stock most seed varieties - certified and uncertified. CROWNVETCH CROWNS. CROWNVETCH PLANTS. (Pa. and northeastern states only.)

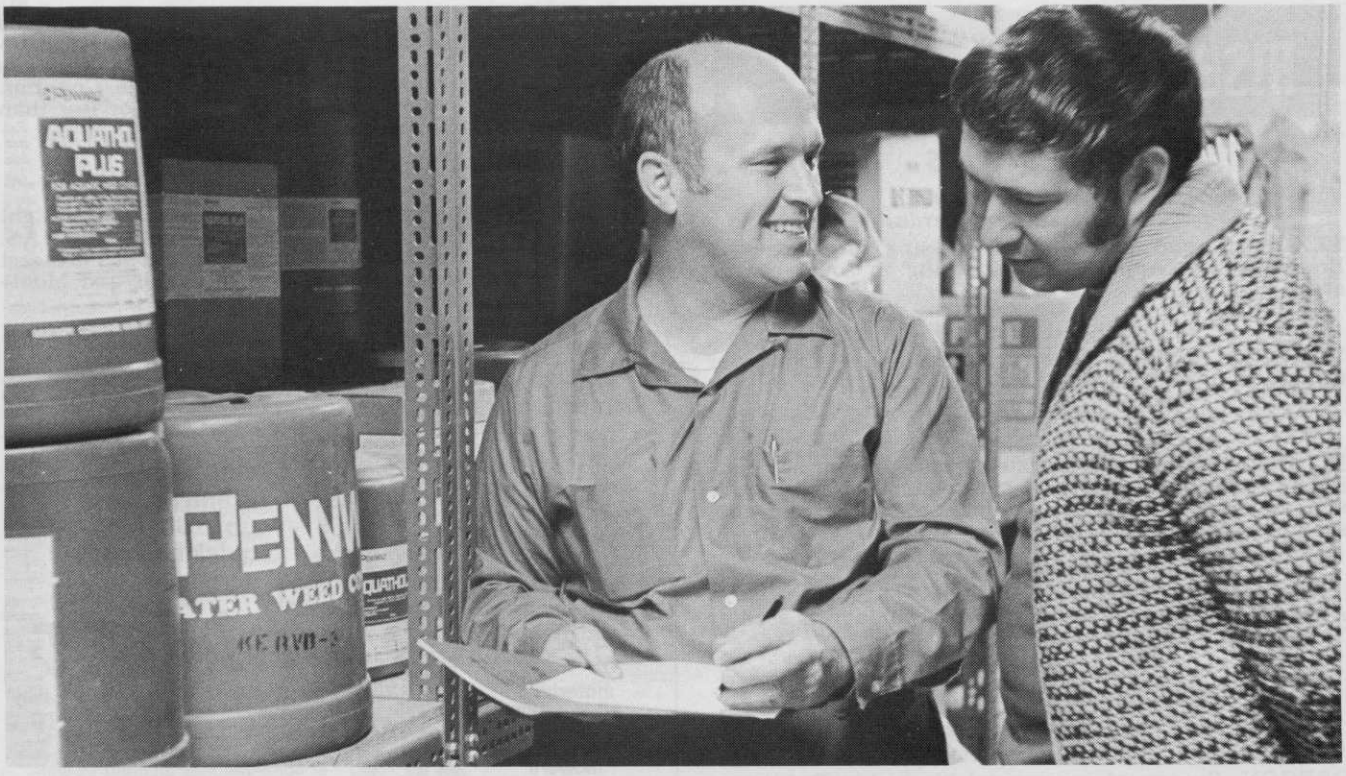
Write or phone for literature & prices. Advise quantity.

STANFORD SEED COMPANY

Post Office Box 230
Plymouth Meeting, Pa. 19462
Phone: 215 - 825-1240

Post Office Box 366
Buffalo, N. Y. 14240
Phone: 716 - 825-3300

For More Details Circle (122) on Reply Card



Jim Burdett, left, and Ross Smith, Burdett's, Inc., discuss scheduling of manufacturer representatives for a 5-month program called "Burdett's Walk-In and Talk."

New System for Customer Orientation

WALK IN AND TALK

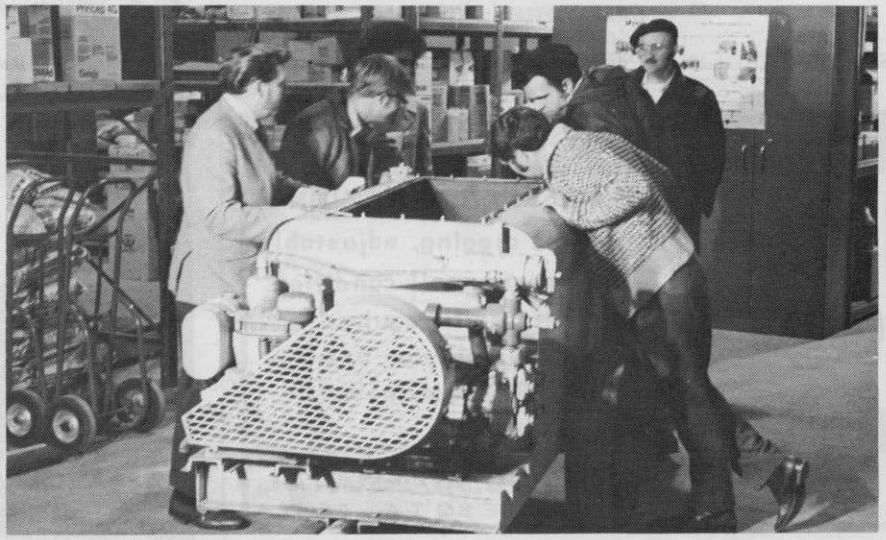
"Burdett's Walk In and Talk, 1971-72," a new type promotion, has been scheduled by Burdett's, Inc., Lombard, Ill., dealers in seeds, fertilizers and golf course supplies, as a service for customers. Walk-in sessions began Nov. 1, and will extend through Mar. 27, 1972.

More than 20 companies, plus the state of Illinois will provide representatives for a series of "learning bull-sessions." Each firm presents a day-long program at which their particular product line or service is shown and demonstrated. Held at the Burdett's, Inc. warehouse, programs include sessions from 9 a.m. to 12 noon, and from 1 to 4 p.m.

The State of Illinois will be represented by the Horticultural Inspection Supervisor from the Department of Agriculture, division of plant industry.

"Our goal is to give customers first-hand information direct from company representatives," says James R. Burdett, vice-president and general manager of Burdett's, Inc. "We feel that conventions and open houses do not provide everyone with enough time to find out new information, discuss it, and really nail down the full benefits of new products, or even a better way to use the older ones! At these sessions customers may walk on, question the experts, explain their individual problems, seek a solution and leave with a new outlook. You can cover a lot of ground when you're face to face discussing something," he continues "and we're looking forward to some enjoyable, informative sessions."

Early in program. Left to right, Art Gerdes, F. E. Myers Co.; Jack Crippan, Crippan Landscaping; Johmie Naughn, Dept. Mental Health, Ill.; Ross Smith, Burdett's, Inc.; Ron Grundberg, North Shore Spray; and Joe Parch, Dept. Mental Health, Ill.; look over Myers unit prior to Gerdes tearing it down for demonstration.



2100 Attend Short Course and Show

Florida Nurserymen's Annual

The 1400-member Florida Nurserymen and Growers Association has just completed its largest show and short course. This annual event this year registered $300,000 in sales at the show itself, held at Hollywood-By-The-Sea.

Important in addition to the show is the short course. Newly featured this year was a presentation by Dr. P. L. Neel. He discussed the pros and cons of staking young trees.

Dr. Neel is a newcomer to the Agriclutural Research Center at Fort Lauderdale. A Pennsylvanian, he recently arrived in Florida from California, where he completed the requirements for his Ph.D. For the past four years, Dr. Neel has been the Graduate Research Fellow of the International Shade Tree Conference.

His findings indicate that trees grown with little or no staking have larger trunk diameters close to the ground, but are not as tall as trees rigidly staked.

Dr. Neel doesn't recommend staking when trees are properly grown in a nursery; they may actually become dependent upon the stakes for support, even when later planted in the landscape. Yet, minimal staking at an early age "often prevents vandalism."

A treelet, he said, which is rigid enough to stand upright by itself, and has the ability to give with the wind and later returns to an upright position, can justifiably be called a strong tree. He stressed, however, that the production of such a tree requires disease and pest control, proper fertilization, watering and adequate space for lighting the lower branches. He discouraged pruning; trim only enough to maintain "apical dominance"' and tree form.

Dr. Neel described "improperly grown" as can to can, causing serious crowding and shading. Result is, treelets grow tall and spindly and lower branches are shaded out.

He has found, he said, that unstaked, unpruned trees grow less in height but the most in diameter, and with greater taper, vs. trees staked and the lower branches pruned, which tends to make trees grow taller, with less taper and trunk caliper.

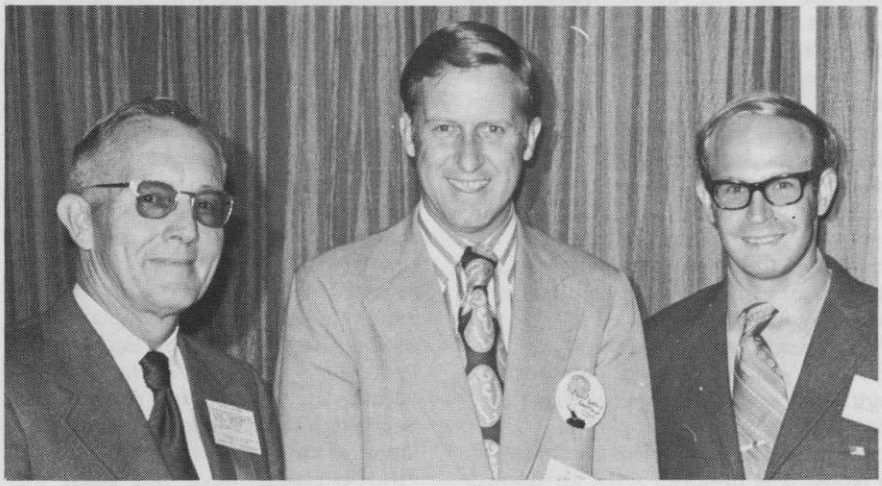
In one of his stake-experiments, it was noted that trees supported by 1" x 1" redwood stakes bent away from the trunks when untied. A subsequent experiment was run to determine whether it was the shading of the trunk by the stake or the pressure against the stake which caused the bending. Results indicated that the unilateral shading was the apparent cause of the bending. On the other hand, treelets supported with plexiglass stakes, with sunlight reaching the trunk, stood upright when untied.

Another featured speaker, Julius Richmond, Electronic Data, Inc., of Houston, speaking on inventory control, warned of the cost of stagnant inventory. Every dollar of inventory must earn at least 5% to 7% each week to pay for its share of fixed expenses, which include overhead, maintenance, lighting, etc., but not the cost of labor and capital investment.

If inventory is stagnant, and fixed expenses are going on, it will cost money to keep an item, plus what you already lost by not allocating its space to another faster moving plant.

Inventory control tells you during periods of demand, the quantity of plants by size, type and quality that can be produced and sold at a profit. Also important, he stressed is to

Honored for his many years of services to Florida's horticultural industry, Jim Griffin, executive vice-president, FNGA, receives award of eminence from Hal Jones, director, Div. of Plant Industry, Gainesville. Griffin's name will be inscribed on the Award of Eminence honor roll in the Doyle Conner Building at Gainesville, Florida.



Spearheading program were, left to right, Joseph Welker, president of FNGA, Duval Landscaping, Jacksonville; Dr. James Strobel, Ornamental Horticulture, University of Florida; and Dr. P. L. Neel, Agricultural Research Center, Fort Lauderdale.

know the total useable nursery space, as well as the allocated space available for each block of plants. This information permits better and quicker decisions.

Also, by maintaining intelligent inventory levels, a severe problem is bypassed, namely, "Out of Stock." Nothing sours a customer quicker than being told "we're out of hibiscus." Not only is a sale lost, but in many cases competition gains another customer.

Speaking on weed control in nursery cans, Prof. Carl Whitcomb, Dept. of Ornamental Horticulture, University of Florida, stressed that sanitation is the crux of keeping down weeds. "And," he said, "Don't be lulled by size, even the wee ones can go to seed; don't allow it."

Sanitation can be expensive, he pointed out, but not as much as overgrown weeds which compete for food and water. Herbicides are only a tool, and not the ultimate answer in weed control, but when used properly will give good service. One of its values is that it doesn't leach. Container stock needs more water because of the concentrated root system (plants can be stunted), compared with plants in the field.

He warned against uneven distribution of herbicides; spraying is temporarily okay, drenching is best, and granules are poorest. The latter will decompose from light and volatilise, while an irrigation system can carry the chemical too deep, too quickly, and is not the answer because of uneven application and subsequent waste.

The rate of application is important, and a shaded soil surface will protect the chemical from deteriorating and evaporating.

Jim Griffin, Jr., vice president of FNGA, was honored with an Award of Eminence by Hal Jones, director of Florida's Division of Plant Industry. Mr. Griffin's name will be inscribed on the Award of Eminence Honor Roll in the Doyle Conner Building in Gainesville.

More than 2100 persons attended the show and short course, which broke all previous records.

More than $2,000 in prizes, including cash, weekends at plush resorts, etc., went to lucky exhibitors and attendants. An armed guard presented a $1,000 bill to Nick Locante, Nick's Garden Center, Boca Raton; and $500 to George Russell, Russell, Inc. Miami. Also, Bob Plyler, Arvida Nurseries, Miami took home a $50 bill, and a color TV set went to Ralph Jones of Kerr-McGee Co., (formerly Wilson-Toomer Fertilizer Co.) of Jacksonville.

Threat to Florida's Palms

LETHAL YELLOWING

A new palm tree disease, called lethal yellowing, is slowly killing coconut palms in southern Florida. To date, no cure has been found.

The disease currently is damaging trees in West Africa, has been known in the West Indies for a century, and has been sporadic in attacks in Key West, Fla., for some 35 years. Recently it has been found for the first time at Key Largo and Little Tork Key, Fla. But the first occurrence on the U.S. mainland was some two months ago at both Coral Gables and Miami. First danger sign is dropping of small, premature coconuts.

When attacked, the foliage of trees begins to turn yellow, starting with the lower fronds. No fruit will set. Male flowers will be dead and black. The vegetative bud dies, as do all leaves. Finally, the dead top falls away in the wind, and only the tall, naked tree trunk remains. This is a fatal series of events, and occurs within a three to six-month period after affliction.

Lethal yellowing destroys all coconut palms in its path but moves slowly. It is an infectious disease, presumably restricted to coconut palms in Africa and America. According to Dr. Daniel A. Roberts, Professor of Plant Pathology, Institute of Food and Agricultural Sciences (IFAS), most scientists believe a virus is the agent, though viral particles have not been discovered yet in diseased trees. "We have strong evidence that other known plant pathogenic agents—bacteria, fungi, nematodes—are not associated with lethal yellowing," says Dr. Roberts. "The agent is most likely carried from diseased to healthy palms by insects with piercing-sucking mouthparts."

Scientists working with the Food and Agricultural Organization of the United Nations and with the Coconut Industry Board and Ministry of Agriculture in Jamaica obtained evidence that a species of whitefly may transport the pathogen. Research on transmissibility has been conducted at the U.S. Naval Station in Key West by scientists from the Division of Plant Industry, Florida Department of Agriculture and Consumer Services, and from the Plant Pathology Department, Institute of Food and Agricultural Sciences, University of Florida.

Many questions concerning the disease are still unanswered. Thorough and immediate research is needed. The best corrective now, according to Dr. Roberts, is to destroy all coconut palms the moment they show symptoms and replace them if possible with resistant lines of Malayan palms. Ordinary coconut palms can be planted in their place on the chance they'll escape infection until after the disease has run its course in the region.

An alert citizenry may be able to check the spread of destruction by learning to recognize lethal yellowing and by making the sometimes hard decision to sacrifice swiftly the already diseased palms in the interest of those that have thus far escaped. Both IFAS and the Division of Plant Industry are prepared to assist in every possible way to get rid of the lethal yellowing already in Florida palms and to check its dreaded distribution to the plants that still enjoy good health.

New Book Features Diseases of Trees

A new and comprehensive book which was 10 years in the making, "Diseases of Forest and Shade Trees," is now available.

Published by the Forest Service of the USDA, the new publication is authored by Dr. George H. Hepting, noted forest pathologist. Until his recent retirement, Dr. Hepting was Chief Plant Pathologist at the S.E. Forest Experiment Station, Asheville, N. C.

The book includes pathology of more than 200 trees, important in the nation. Most are native, but many introduced species used for shade or ornamental use are included, as were some orchard trees. The Forest Service expects the new book to find ready use as a standard text and reference work.

Cost is $4 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20412.

classifieds

When answering ads where box number only is given, please address as follows: Box number, c/o Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

Rates: "Position Wanted" 10¢ per word, minimum $3.00. All other classifications 20¢ per word, minimum $4.00. All classified ads must be received by Publisher the 10th of the month preceding publication date and be accompanied by cash or money order covering full payment. Boldface rule box: $25.00 per column inch.

HELP WANTED

LARGE PROGRESSIVE TREE service company is interested in employing a man capable of assuming the direction of tree, lawn, and garden service to individuals. We are presently engaged in this activity but wish to expand this phase of our service. We can offer a good salary with the opportunity of a bonus, pleasant working conditions, and the normal benefits. We also have an excellent hospital, accident, and life group plan. Write Box 72, Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

SEEKING DYNAMIC professional turf expert to join two MBA's in organization and operation of innovative lawn service company. Individual should be experienced in turf management and 24 to 36 years of age. Great opportunity to help create exciting new service organization. Financial and legal foundation laid for spring start-up in major midwestern city. Send letter describing background and life goals to Box 74, Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

EXPANDING tree service company in northeast—looking for aggressive and experienced salesman. Starting pay commensurate with education, experience, and ability. Commission also paid on profits earned. Company car furnished; pension plan; paid hospitalization, excellent future. Send resume (with current annual sales and earnings) to Box 73, Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

SOD NURSERY MANAGER. Young, married man for 400 acre operation serving Chicago metropolitan area. Send resume. Box #75, Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

USED EQUIPMENT

69 SKYWORKER 1044-A, 45 ft. mounted on F-600 Ford with hydraulic controls from crow's nest and 14 cut. ft. dump box. Asking $10,800.00, excellent condition. Also 12" Asplundh chipper, rebuilt 6 cylinder engine. Asking $1,800.00. 63' Dodge 4-wheel drive ideal for mounting tree spade. Asking $1,200.00. Wanted: Series #5 truck mounted National crane. Edwards Tree Service, 3190 Cooper Foster Park Rd., Vermilion, Ohio 44089. Call 216 967-6750 or 933-6750.

RECONDITIONED brush chippers, sprayers, log splitters, stump routers, bucket trucks. Let us know your needs. Equipment Sales Company, 5620 Old Sunrise Highway, Massapequa, New York 11758. Phone 516 799-7619.

1968 ASPLUNDH 16" 8 cylinder Chipper, $3400.00; 1968 5T Alenco Crane with 60' boom extension on Ford Chassis, $10,500.00. Ohio Chipper & Equipment Co., Mentor, Ohio 44060. Phone 216 255-4355.

1968 ASPLUNDH 16" V8 Brush Chipper, $2550.00. Very good condition and very clean. Kasik & Sons Landscaping Contractors, Riverside, Illinois 60546. (Div. of KAGO, Inc.) 312/447-7393.

CHIPPERS — Asplundh nine inch, running and in good condition. Jaflo, Inc., P.O. Box 262, Allentown, Pa. Phone AC 215 395-3213.

FOR SALE

DOUBLE EDGE sod cutter blades. Will fit any Ryan sod cutter. Works like double edge razor blade. Cuts much more sod per blade. Made to bolt on both ways. $24.00 plus postage. New automatic sod loaders for direct loading to pallets, trucks or trailers. No workers needed on ground. Both products developed and designed by Hadfield. Write or call Glen Hadfield, 4643 Sherwood, Oxford, Michigan 48051. Phone 313 628-2000.

FARMS FOR SALE—78 acre northern Indiana muck sod farm with modern residence and outbuildings. Complete with all equipment. Established business. 140 acres growing sod with lease. Favorable contract sale. Schrader Real Estate, Inc., 209 W. VanBuren, Columbia City, Ind. 46725. Phone 219 244-7606.

SPRAY AND TREE SERVICE—Illness forces sale of fast growing but stable business. Regular four time per year customer route. Very modern equipment. $34,500.00, terms. Write: George DesBrisay, 333 American Bank Bldg., Portland, Oregon 97201.

SEEDS

SOD QUALITY MERION SEED for discriminating growers. Also Fylking, Delta, Park, Newport, Nugget and Pennstar bluegrasses as well as fine fescues. We will custom mix to your specifications. Michigan State Seed Company, Grand Ledge, Michigan 48837.

MISCELLANEOUS

TREE APPRAISALS AND SURVEYS: For names of members of American Society of Consulting Arborists, Inc., nearest you, contact: Executive Director, ASCA, 12 Lakeview Avenue, Milltown, N.J. 08850.

POSITIONS WANTED

GREENS SUPERINTENDENT Class A Member G.C.S.A.A. P.G.A. Class A desires position. Experienced all departments of golf course operations. Best of references. Phone Waterman, Ill. 815 264-3523.

—Advertisers Index—

Applied Biochemists, Inc. 38
Asplundh Tree Expert Co. 11
Bar-Way Mfg. Co. 39
Beck Mfg. Company 43
Bessler Equipment Company 79
Brillion Iron Works 77
Chemagro Div. Baychem Corp. 23
Creative Sales, Inc. 51
Cyclone Seeder Co., Inc. 73
Ditch Witch Trenchers, Inc. 31
Dow Chemical Co. 7, 9
Elanco Products ..... 3rd cover
Eversman Mfg. Co. 21
Fuerst Brothers 79
G & H Products 79
Geigy Agricultural Chemicals Division 19
Goodall Div., Bunton Co. 64
Gordon Corp. 26
Hercules, Inc. 3, 4
Hypro, Inc. 30
Jacklin Seed Company ..... 2nd cover
Johnson Equipment Co. 32
King Brothers Industries 78
Limb-Lopper Co., Inc. 15
Lindig Mfg. Co., Inc. 41
M-B Company 53
Miller Tilt-Top Trailers, Inc. 55
3M Company 49
Mobil Aerial Towers, Inc. 47
F. E. Myers & Bro. Co. 29
National Mower Co. 57
Niagara Chemical Div., FMC Corp. 16
Nursery Specialty Products Co. 39
Pennstar Kentucky Bluegrass 44, 45
Precision Chipper Co. 25
Princeton Turf Farms 33
Reinco, Inc. 37
Ryan Equipment Co. 28
Safety Test & Equipment Co. 41
Servis Equipment Co. 27
Spraying Systems Co. 33
Stanford Seed Co. 79
Stihl American, Inc. 5
Toro Mfg. Corp. ..... 4th cover
Village Blacksmith 8

I don't spray weeds, sir. I stomp 'em to death.

Trimmings

SYNTHETIC TURF promises to become a mainstay in the American life style whether or not it continues to be used extensively for athletic fields. New markets are developing or being developed in both consumer and industrial markets. Indications are that Monsanto's consumer sales this year (including doormats) will exceed commercial sales. New markets for synthetic turf (by American Biltrite, 3M, Ozite, Chevron, Lee & Mohawk and others) include synthetic ground coverings around motels, gas stations, shopping centers, highway medians, and homes. One report even has Astro-Turf being used to cover Hawaiian cemetery plots owned by Chinese whose religion permits them to attend grass on plots only two weeks of the year.

* * *

ROADS AND STREETS in this country now total 3.7 million miles, surprisingly up only slightly in the last 15 years from about 3.4 million. And only about 15 percent of this total is municipal mileage. The balance is rural. Further, the Federal government has jurisdiction only of roads in National Forests, Parks, etc. This amounts to about 5 percent of the total (188,000 miles), the balance being under state or local control.

* * *

SODIUM appears the chief cause of damage to plant growth where plants are subjected to high concentrations of household laundry. Study by two VPI scientists showed other soluble salts along with the sodium delayed emergence of seedlings in corn plants. Abnormal growth was also common including bending, abnormal constrictions across leaves, discoloration, and in some cases death of the corn plants in less than three weeks. Phosphorus was not a factor, apparently because it is a prime fertilizer element which improves plant growth.

* * *

A MOVIE produced by the National Agricultural Chemicals Association entitled "Norman Barlaug: Revolutionary," is gaining popularity. It was selected to receive a Golden Eagle Award by CINE, the Council on International Nontheatrical Events, plus an Award of Merit in the '71 American Horticultural Film Festival. Dr. Borlaug, Iowa-born agronomist, Nobel Peace Prize winner (in 1970 for developing new wheat strains), and director of an international wheat research program at Mexico City, has become a national news figure of late. His testimony at hearings of the Environmental Protection Agency recently at Washington, D.C. scored all efforts to ban DDT because, he testified, "Without DDT and other important agricultural chemicals, our goals are simply unattainable—and starvation and world chaos will result." He said that we used 290 million acres of farmland last year to produce food for ourselves and other nations. "With the technology used 30 years ago—when most of today's pesticides and fertilizers were nonexistent—we would have required nearly 600 million acres . . ." Dr. Borlaug also appeared last month before 1000 delegates from 125 countries attending the 16th Governing Conference of the United Nations Food and Agricultural Organization. He literally scored environmentalists for their anti-DDT campaign and won strong support for his position from the world FAO group. Replys can be expected shortly, especially from specific groups including what he termed the "new legal arm of the movement," the Environmental Defense Fund.

* * *

SCIENTISTS IN INDIA are working on a research project to find ways to speed the tree growth, with U.S. funds. A foreign currency grant is for a basic study of dormancy and growth control of Himalayan spruce, similar to U.S. spruces. Conifer seedlings grow continuously for up to 10 months. Then a terminal bud forms and dormancy sets in. When the bud opens, growth begins again for a few weeks; then, another bud is formed and dormancy again occurs. Indian scientists will seek ways to make trees grow for several months each year.

* * *

PARATHION was the subject of controversy last year when two deaths and many illnesses in North Carolina were blamed on the chemical used to control aphids and flea beetles on flue cured tobacco. Florida growers of cigar wrapper tobacco, an earlier crop than the northern flue-cured tobacco and one on which six to 10 times more parathion is normally used, had reason for concern and welcomed studies by Florida's Dr. William Tappan, university researcher. He supervised checks of 45 tobacco workers over a 6-week period. Despite contact with parathion residues, no illnesses occurred though one worker did experience slight depression effects. Parathion is a very dangerous material, Tappan reports, and must be used with extreme care. Yet regular blood and urine sample indicated no problems where the chemical was used as recommended.

Barrows Is Named Consulting Arborist

At its recent meeting in Montreal, Canada, the American Society of Consulting Arborists voted Walter J. Barrows into active membership. The Society with members throughout the United States and Canada is composed of men who are recognized for their professional abilities in the care, treatment, and maintenance of trees in the landscape.

These men are particularly skillful in the technical aspects of arborist culture, tree appraisals, tree surveys, and the evaluations of the effects of trees in our environment.

Barrows, Ventura, California, has been employed by the Ventura County Parks Department as Landscape Coordinator for the past three years.

BOOK REVIEW

THE MODERN GOLF COURSE SUPERINTENDENT, a primer of history and experiences by a veteran golf course superintendent, Richard Viergever.

The book is soft cover, 8½x11 inches in size and has a plastic spiral binding. It is 186 pages in length and contains many illustrations. Price is $9.50.

The book contains the ideas on golf course management and maintenance gained by Mr. Viergever during many years in the profession. Whether learning to manage a golf course, or already on one, the book is interesting and worthwhile. The publisher recommends it for classroom instruction. Tips given in this book are directed specifically toward the golf course business.

Segments of the book include superintendent responsibilities, training and administration of workmen, structure of the superintendents crew, educational needs, maintenance of property, communications, how to apply for the position, and even the duties of the superintendent as a citizen.

Available from Tomson Publications, P.O. Box 50160, Indianapolis, Ind. 46250.

Why not Birth Control for weed grasses?

That's what Elanco's unique Balan® is all about.

It stops weedgrasses *before* they start . . . effectively and dependably. Including troublesome Poa annua and crabgrass. But without harm to established turf. After a full season on the job, it "self-destructs" so there's no toxic residual buildup.

And what **Balan** does for turf, **Treflan®** will do for ornamental beds, preventing the germination of a wide spectrum of weeds and grasses.

Ask your distributor salesman to help you work out a complete weed control program. **Elanco Products Company,** a division of Eli Lilly and Company, Dept. E-455, Indianapolis, Indiana 46206, U.S.A.

Treflan Balan ELANCO

(Treflan®—trifluralin, Elanco)
(Balan®—benefin, Elanco)

For More Details Circle (108) on Reply Card

For More Details on Back Cover Circle (123) on Reply Card

OUR GANG.

A unique mowing tractor, designed to give more cutting capacity to one man and one machine.

The Parkmaster® with its 9 hand adjustable Spartan† mowers has an 18′ 6″ cutting width. Mows up to 12 acres an hour, saving time and manpower. Cuts mowing costs up to 50%.

Gang units are controlled by a hydraulic system that picks them up or sets them down one at a time avoiding obstacles and saving more valuable time.

The Parkmaster folds up into an 8 foot width and transports at speeds up to 50 mph. It's also available in 5 and 7 gang models.

Check into Our Gang. The Parkmaster 9 from Toro.

†Exclusive mark of The Toro Company

TORO®